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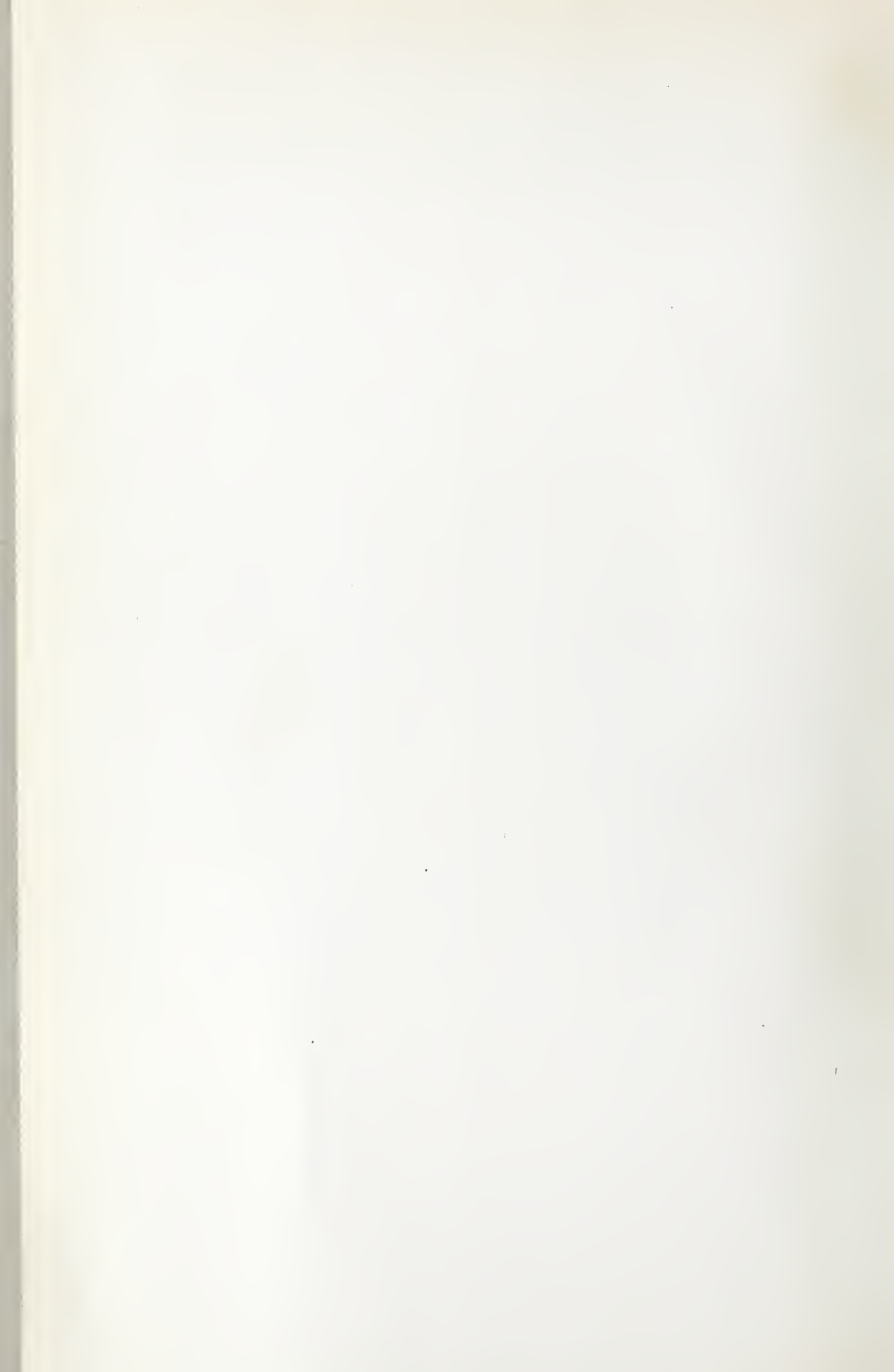






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# The JOURNAL OF THE ARKANSAS MEDICAL SOCIETY

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Vol. XLIV

LITTLE ROCK, ARKANSAS, JUNE, 1947

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University of California

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L. T. EVANS, M. D.

Batesville  
President, Arkansas Medical Society  
1947-1948



# The JOURNAL

## OF THE ARKANSAS MEDICAL SOCIETY

PUBLISHED MONTHLY UNDER DIRECTION OF THE COUNCIL

Vol. XLIV

LITTLE ROCK, ARKANSAS, JUNE, 1947

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### PRESIDENT'S ADDRESS \*

H. KING WADE, M. D.  
Hot Springs National Park

Each century has developed a conditional pattern of thinking that sets it apart from others. The Eighteenth Century was marked by the key word "independence," political, intellectual and spiritual. The Nineteenth Century was devoted to "growth and development" and in this, the Twentieth Century, the key word is "security," which has been brought about by the development and use of nuclear physics.

In the quest for security there has been global feverish activity by the United Nations. Nationally, we are engulfed in economic bargaining between labor and management and radical changes in theories about education, race, government and social welfare, all of which are signs of the time.

All phases of American life are being affected by this quest for security. We of the medical profession are chiefly concerned with the phase of this revolution which has to do with social welfare.

There has been a maelstrom of ideas in this period, to such an extent that the unusual phrase has been coined, "security from the womb to the tomb."

Less than a year ago we were locked in a death struggle with the Murray-Wagner-Dingell Bill which, according to our interpretation, was an attempt at regimentation and federalization of our profession. Among other features compulsory health insurance was to be foisted upon the public. The bill and all of its implications was so distasteful to the medical profession that Organized Medicine was activated in a co-ordinated effort to prevent its passage. It has been said, "A battle was won but the war is still on." This same issue will be presented time and again in varying forms and the struggle will continue.

The answer of Organized Medicine to this

threat has been Voluntary Prepaid Medical and Dental plans, which in some form or another have been adopted by practically every state in the union. Arkansas was the recent of 45 states to adopt such a plan.

A committee from the Arkansas Medical Society, a group that has given unstintedly of its time and money, carefully studied each state plan in operation, and then after choosing the one they considered applicable for our state, submitted it to the House of Delegates in January, 1947, and it was adopted. We who have studied these voluntary prepayment plans realize their imperfections and shortcomings but feel there must be an initial point from which to work toward a more perfect coverage. We are convinced that if this auspicious beginning receives the full co-operation of the medical profession and the public at large, it will develop into a function which will materially benefit both the people of the state and the medical profession.

### Veterans' Administration

During the past year the Arkansas Medical Society has entered into a contract with the Veterans' Administration for the care of veterans with service-connected disabilities. This provides for the care of the veteran in his own community by the doctor of his choice. It further requires that the doctor signify his willingness to participate in this program, by filling out the form sent out by our secretary and returning it to him.

Specific rules and regulations will be furnished each participant regarding the *modus operandi* which must be carefully adhered to if the scheme works smoothly. The initiation of this plan by the Veterans' Bureau was a necessity because of the shortage of Veterans' Administration hospitals and properly qualified medical personnel throughout the United States. It is our patriotic duty to enter wholeheartedly into this phase of post-war care for disabled veterans.

In the past year Senate Bill 191, known as the Hill-Burton Bill, received the approval of Organized Medicine. This bill provides funds for a

\* Delivered before 71st Annual Session, Arkansas Medical Society, Little Rock, April 17, 1947.



survey of hospital facilities in each state and federal moneys to be granted to states for hospital construction in proportion of \$2 of state money to \$1 of federal aid. Before the passage of this bill Governor Ben Laney appointed a most competent committee to make a study in Arkansas in conjunction with the Arkansas State Board of Health. Its report was most thorough and revealing, some of the findings of which I wish to give you briefly.

(1) Our state ranked 46th in rejected military registrants during the recent war. This figure was augmented by the fact that  $\frac{3}{4}$  of the negroes were rejected.

(2) Arkansas ranked 39th in maternal death rate per thousand live births. Only about  $\frac{1}{4}$  of all live births occurred in hospitals. Of the negro population less than 5% of live births occurred in hospitals in 1945. The remaining 95% were somewhere else and at times not even attended by a physician or a midwife.

(3) Hospital admissions per thousand population in 1945 were lower in Arkansas than any other state in the union.

(4) Hospital days per thousand were lower in Arkansas than in 46 of the 48 states.

(5) Arkansas ranked 48th in the number of dentists, physicians and nurses per thousand white population, and 47th in the number of hospitals per thousand population.

Some of the facts regarding inadequacy from the standpoint of hospitals were as follows:

(1) There are approximately 100 general hospitals in the state, and this is counting those hospitals that had from five beds up. This does not include beds at the State Tuberculosis Sanatorium, Federal hospitals and mental hospitals. This gives us a total of about 3,808 beds. The minimum need is approximately  $4\frac{1}{2}$  beds per thousand population. This means that Arkansas needs 8,000 beds to reach the minimum requirements, which are approximately  $2\frac{1}{2}$  times what she now has.

(2) It is estimated that the average person in our state must travel 40 to 50 miles to reach the nearest hospital.

(3) This survey shows that Arkansas has approximately 1,256 doctors, of which  $\frac{1}{3}$  are over the age of 65 years, only  $\frac{1}{6}$  being under the age of 40.

(4) It is estimated that one physician is the minimum need for one thousand population. There is uneven distribution of these physicians over the state, and to reach the minimum needs

approximately 750 more physicians would be required.

(5) The nursing situation is equally as pressing an issue. There are approximately 88 health nurses in the entire state, 24 counties having no health nurse at all. This emphasizes the absolute necessity for greater training facilities for nurses.

These facts and many more as equally alarming are shown in this survey.

### Medical Education

Medical education in the United States is faced with a tremendous problem. Because of federal subsidy of medical education under the provisions of those acts which are commonly referred to as "The G.I. Bill of Rights," each medical school is faced with the proposition of being unable to accommodate all those who desire a medical education. No doubt, too, the effects of the last World War have a direct bearing in activating a great number of individuals to pursue the study of medicine. Military hygiene, sanitation, preventive medicine, which can be grouped into the broad field of military medicine, has enlightened thousands who have become interested in things medical, and these interests have motivated many to a desire to study medicine. The University of Arkansas School of Medicine is no exception. I am informed that there are presently on hand 250 applications from bona fide citizens of our state for registration in the freshman class at our school next October. Obviously, the choosing of a maximum class of 85 will present a tremendous problem to the medical school authorities, and no doubt many fine citizens of our state will be disappointed in not being chosen for this next class.

Your committee and officials of the Arkansas Medical Society and various other interested citizens have been instrumental in the past in arousing the interest of the various state officials and members of the General Assembly and the press in the problem of medical education, and this interest has been manifest in the passage of certain legislation sponsored by the Chief Executive of our state, which will allow the construction of a new memorial hospital to be operated by the medical school and have approved an increased operating budget which will allow the medical school authorities to operate in a much more efficient manner than in the past. It is believed that when the various projective reorganizational measures are consummated and the memorial hospital constructed, that all the requirements of the council on medical education



will have been met and that the future of our medical school will be assured.

We who are interested in medical education in our state believe that the School of Medicine should develop a product which will best serve the requirements of the state, primarily predicated to the needs and requirements of it. Nevertheless, the medical school authorities will, of course, endeavor to develop a system of medical education which will meet with the basic requirements of the Council on Medical Education and Hospitals of the American Medical Association.

The committee on Medical Education and Hospitals of the Arkansas Medical Society was aware of the many problems of the University of Arkansas School of Medicine prior to the report of the committee appointed to survey the medical requirements of the state. They were assembling the necessary information which, when augmented by the report of survey of the Governor's committee, led them to make certain recommendations to both the authorities of the Arkansas Medical Society and the Board of Trustees of the University of Arkansas. The Board of Trustees, during its September meeting, 1946, entered into a contract with Dr. H. Clay Chenault to become Dean of the School of Medicine and Vice President of the University of Arkansas.

Dr. Chenault, retired Army officer, a man of vision and proven ability as an organizer, took over this post on October 1, 1946. He immediately began a thorough and systematic study of all the problems of medical education, state and national, and the needs of our Medical School in particular. He interviewed business and social interests throughout the state and secured their co-operation in helping solve our problems.

In the time allotted for this discussion it has been impossible to comment on the multiplicity of activities of the Arkansas Medical Society the past year. Suffice to say that never before has there been a year when so many important problems confronted us.

If, thus far in the discussion, there has been a note of pessimism it was unintentional, I assure you. Statistical figures are generally brutal, but a presentation of them seems the best method of getting the facts before us.

We are rather inclined to a spirit of optimism when we realize how much has been accomplished in such a short period of time. Immediately upon the announcement of the various committees a

year ago they went into action. Individually and collectively they deserve a special word of commendation for their accomplishments, and I want to take this occasion to thank each member of each committee for his excellent and constructive assistance to the Medical Society officers.

Through such agencies as the University authorities, State Board of Health, State Chamber of Commerce, State Hospital authorities, State Administration, Welfare workers, Arkansas Medical Society and the Press, the people of Arkansas are being made conscious of our problems of health and hospitalization.

We realize that a long time will be required to reach the goals set by this year's planning, but this program, of necessity, is one of long range planning, and it is my firm conviction that it will ultimately succeed if prosecuted vigorously by our Society. Let our slogan be—"Arkansas can and will take care of her own."

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Provision for Sick Benefits. Employers should be encouraged to make available protection for their employees against wage loss due to non-occupational disability, and hospitalization and medical and surgical care benefits, under such distribution of cost as may be mutually satisfactory to the employer and employees.

No compulsory legislation should be enacted at the state or federal level unless it should become clear that efforts to provide voluntary protection against wage loss due to non-occupational disability and against the major expenses of hospitalization and of medical and surgical care have left substantial gaps in coverage.

Should future events demonstrate that voluntary efforts have failed, and that the public interest requires a compulsory governmental program in any of the fields mentioned above, then such a program should be adopted through proper action by the states or their local subdivisions.

In the event legislation as indicated above is to be enacted, it should conform to sound insurance principles and practices (including the principle of experience rating), should be administratively practical, and should provide for private insurance (including self-insurance) as an instrumentality for paying benefits under the law.—Adopted by Chamber of Commerce of the United States, 1947 annual meeting.



## STUDENT HEALTH SERVICE AT THE UNIVERSITY OF ARKANSAS\*

FOUNT RICHARDSON, M. D.

Fayetteville

It is often difficult to take a subject which is largely statistical and make it something of interest to the average listener. However, in talking about the Student Health department of the University of Arkansas, I am sure that it becomes more interesting to the physicians of Arkansas if you will realize that practically every one has a private patient who is now in attendance at the school I represent. It is therefore worth your while to know what sort of situation is available to them if they get sick.

The University of Arkansas maintains a student health service for all regularly enrolled students at the school. This health service consists of a thirty-bed student infirmary organization, and run by the staff of the department. Management of the infirmary is in charge of a head nurse with four assistant nurses, a housekeeper with two assistants and a clerk. The staff includes one full-time dentist, a dental technician, two part-time associate physicians and one full-time physician. Consultations and extra help are obtained from the doctors and nurses of the surrounding area. Associated with me at the present time are Dr. W. J. Butt and Dr. Ralph Weddington.

The expenses of this health department are borne by student fees for which the student is given an entrance physical examination, consultations, immunizations and emergency treatments as well as any treatment that can be accomplished at the infirmary. The University does not try to run the infirmary as a hospital. All emergency surgical cases are sent to properly equipped institutions, as the City Hospital of Fayetteville, for emergency work such as major fractures, injuries and appendectomies. Minor work is taken care of at the infirmary where a large out-patient department is maintained. This out-patient department serves from an average of thirty-five daily during normal times to more than a hundred patients daily during the winter months. Mild upper respiratory infections, injuries and illnesses are placed in the infirmary until the disease has been relieved.

The infirmary building is conveniently located on the edge of the campus and is not far from

a large percent of the boarding houses and dormitories.

The physicians at the University Infirmary have maintained a policy that all elective surgery such as tonsils, hernia and orthopedic reconstructive work does not come under the jurisdiction of the health department and these cases are always referred to the home physician. It has been our policy to contact the home physician rather than the parents when such surgery is advised. We like to have the student feel that his home doctor is still his family physician. It may be said here also that in case any student becomes seriously ill, his parents or family doctor are notified immediately of his condition. In many cases, the family physician has come to Fayetteville for consultation or for an appendectomy on these occasions.

It is always interesting to know what is being done under similar situations in the surrounding schools and in 1945 the University of Texas instituted a survey of student health service in all schools and colleges in the southwest. The student health service at the University of Arkansas assisted in this survey and the information gained showed that the health service offered at the University of Arkansas is clearly above the average offered in similar size institutions. Probably Oklahoma A. & M. College could be said to be giving equal facilities to those offered by the University of Arkansas but most other schools in the area such as Southern Methodist University, University of Texas and Baylor have a program which is definitely not as complete as the one which we maintain.

In these days of the socialist tendencies, there has been some comment that the student health service should be made a complete health service. It is doubtful, however, if this is desirable, as long continued chronic illnesses have no place with school life and can better be taken care of elsewhere; then too in the case of highly specialized service such as X-ray therapy, neurosurgery, etc., it would be possible to keep a competent staff for these treatments only at a greater and unnecessary expense. As it is, emergency treatment and routine care for any so-called "ordinary" illness are given by the student health service and special work is referred to specialists near the patient's home or at some other convenient locality. The University of Arkansas Board of Trustees has felt that as long as emergency and routine medical care was made available to the students that it is not the responsibility of the school to take care of chronic or special cases.

In these days of crowded hospitals, the man-

\* Read before the 71st Annual Session, Arkansas Medical Society, Little Rock, April 19, 1947.



agement of the Veterans' Hospital and the City Hospital of Fayetteville have been most gracious about accepting our emergency cases, and without their help, it would be necessary for the University to establish and operate a general hospital of its own.

When a student gets ill, he comes to the University Infirmary for treatment. Seldom we get house calls, and we make these only in emergencies. If the student is ill enough to be in bed, when he comes to the out-patient department, he is given a bed in the infirmary where he remains until he is ready for school again. All contagious cases are isolated and cared for in the infirmary. The students are required to furnish their own medicine.

From time to time additions to equipment are made, and in the fall of 1946 a dental department was opened which affords dental consultation and treatment to the student body. This is in charge of Dr. R. G. Pickard and has proven very popular among the students.

The additional duties of the University physician are those of a health officer of the institution. There are the rules of isolation, of sick cases, of imposing quarantines when it becomes necessary as well as the inspection of any health hazard that occurs on the University property. The University physician is a member of the Committee on Housing and the duties of this committee call for a certain amount of his time to be spent in inspecting the dormitory halls as well as the kitchen facilities in the cafeterias and dining halls maintained by the University. He acts as advisor in sanitary problems in the private boarding houses, sororities and fraternities.

One of the physicians connected with the University is usually present at football games and other athletic contests where there is apt to be a serious injury. In this respect, it might be added that a physical examination is given all athletic candidates at the beginning of the season and the physician stays in an advisory capacity through their training throughout the year.

It is hard to estimate what the average number of bed patients is in a year, during these times in which the college population is changing so rapidly. Last year there were 350 bed patients and that number has already been far exceeded this year. For the past two years, it has been necessary also to keep the University In-

firmary open during the summer term. Back in the days when the summer school students numbered 200 or 300, it wasn't felt necessary to run the department. Now that the summer school for 1947 is expected to run 2,000, the plans, of course, are to keep the department going throughout the summer months.

There is an important point that I wish to leave with you, that is in case of serious illnesses Dr. Weddington, Dr. Butt and I have always used the policy of notifying either you as a family physician or the parents of the sick student. When the illness is mild, we make no report to the parents, but if I can leave you assured that if your private patient gets seriously ill, you will be informed, then this paper will have accomplished its purpose.

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### TRY PABLUM ON YOUR VACATION

Vacations are too often a vacation from protective foods. For optimum benefits a vacation should furnish optimum nutrition as well as relaxation, yet actually this is the time when many persons go on a spree of refined carbohydrates. Pablum is a food that "goes good" on camping trips and at the same time supplies an abundance of calcium, phosphorus, iron, and vitamins B and G. It can be prepared in a minute, **without cooking**, as a breakfast dish or used as a flour to increase the mineral and vitamin values of staple recipes. Packed dry, Pablum is light to carry, requires no refrigeration. Easy-to-fix Pablum recipes and samples are available to physicians who request them from **Mead Johnson & Company**, Evansville, Indiana.

**DOCTOR WANTED** for continuous duty at Naval Air Station, Dallas. Former Reserve Officer though Commander or qualified civilian may obtain information from Commanding Officer. Flight pay if flight surgeon.

### WANTED—A PHYSICIAN

The town of Eudora, Arkansas, population 2,500, with a trade territory population of 15,000, would like to secure a physician and will assist in any way possible. Before the war the town had five active physicians—now only one. An agricultural community above overflow. Former office of Dr. S. W. Douglas, retired, available.

If interested please contact Thos. L. Cashion, Secretary, Eudora Chamber of Commerce.



## THE NEW ARKANSAS HEALTH CARE PRE-PAYMENT PROGRAM\*

The new pre-payment program for surgical, obstetrical and hospital care which has been officially approved by the Arkansas Medical Society is of great significance not only to organized medicine in this state but to all Arkansas doctors individually.

Every family to enroll in the full program will, in effect, be including the cost of surgical, obstetrical and hospital services in the regular family budget. In other words, it will be saving in advance for the kind of medical and hospital care that is essential to good health.

When the need for that care arises, the usual economic worries will be absent. The requirements of good medical practice become the sole consideration in determining treatment.

Moreover, the simplicity of the plan in actual operation is remarkable. Each member or subscriber receives an identification card containing the number of his group and the number of his insurance certificate. Supplied with the data from this card, the insurance company will verify the patient's good standing to both doctor and hospital immediately, will furnish brief, one-page forms on which to report the services provided to the patient and, upon return of the form properly filled out, will make payment directly to doctor and hospital within 72 hours.

To the extent that it thus lifts a major barrier to good health care, the plan becomes an important contribution to the health of the people. At the same time it is a new and noteworthy influence in stabilizing the economics of medical practice and hospital operation. It deserves the study of every doctor of medicine.

In the form in which it now nears the actual enrollment of residents of Arkansas, the plan is the outgrowth of long study by the Arkansas Medical Society both singly and in cooperation with the Arkansas Hospital Association. A joint committee was established by the Medical Society and the Hospital Association with Charles R. Henry, M.D., as chairman. Exhaustive analysis of numerous approaches to the problem by this committee resulted late last year in the detailing

of specifications for what was considered a model health insurance program.

These specifications were submitted to the 96 companies authorized to write health insurance in Arkansas, along with invitations to each to submit bids. Approximately 10 companies signified interest and offered definite programs, but only one—the John Marshall Insurance Company of Chicago—met the specifications in full. After a hearing April 27 to which all the interested companies were invited, the John Marshall Company finally was awarded official approval.

The John Marshall insurance policies will bear the stamp of approval of the joint committee of the Arkansas Medical Society and Arkansas Hospital Association; and one of the conditions of approval is that the company aggressively solicit insurance in all of the 75 counties in Arkansas. The sale of any forms of health and hospital insurance in Arkansas by other companies is not in any manner prohibited or effected by the seal of approval given to the John Marshall Insurance Company.

It is not contemplated that a pre-payment monopoly will be created by this arrangement. Obviously, neither the Joint Committee nor the Medical Society has the power to create any such monopoly. There are two dominant reasons, however, for the awarding of approval to a single company rather than to several companies.

First, it is the purpose of the program to make it easier for the people of Arkansas to obtain the health care they need. Not only in the manner in which it met the requirements for a sound health care program but also in its normal operation, the John Marshall Company has demonstrated its basic interest in this purpose.

The company in many ways places emphasis on enabling the provision of health care rather than on indemnifying policy-holders for losses resulting from sickness or accident. It does not, for example, require health statements, impose age limits for membership, exclude pre-existing or chronic conditions, or otherwise refuse membership to those who may need health care most. It maintains no claims department, depending on the individual doctor's judgment for determination of the patient's need for care.

The John Marshall Company, in fact, was developed by a group of former executives from some of the nation's leading non-profit medical and hospital service plans, and it has pledged

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\* Prepared for publication by the Committee on Medical Service and Public Relations, Chas. R. Henry, M.D., Chairman.



operation in Arkansas at an overhead no higher than that of the best non-profit plans.

Second, the rapid development of the new health care pre-payment program in all parts of the state is essential. Representatives of labor, business, industry, agriculture and law served as public members of the Joint Committee, and it is the committee's intention that the new program will serve these and all other public groups equally.

To become a statewide operation serving both urban and rural groups, to function in both sparsely and densely populated areas, it was necessary that the program be forwarded by a single organization. A number of companies all competing for attention on the same basis would at once have the effect of confusing the people and of distributing enrollment so widely among the companies that none could afford to do a truly intensive job.

Beginning, it is hoped, about July 1, the John Marshall Company will offer the following health care programs:

**Comprehensive Surgical-Obstetrical**—Provides for liberal payment directly to the doctor in surgery for the treatment of diseases and injuries and the correction of fractures and dislocations, and in obstetrical cases, whether the patient receives treatment at home, in the doctor's office or in the hospital. Payment is according to a Schedule of Surgical Operations and Benefits which is unusually broad and which will be published and distributed later.

Monthly rates: 70 cents for one person; \$1.90 for a family, including husband, wife and all unmarried children under 19 years of age.

**Comprehensive Hospital**: Provides for payment directly to the hospital without cash limitation for the expenses incurred by members for as many as 120 days of care per admission. Plan covers care in semi-private rooms (two or more beds), and places no limitations on extras, including the following: Meals, special diets and infant feedings, general nursing service, complete laboratory service, X-ray service and use of radium, all officially-listed drugs except blood and blood plasma, use of physical therapy apparatus, operating and treatment room services, anesthesia by hospital salaried employees, electrocardiograms, basal metabolism examinations, dressings, casts and oxygen. The benefits are provided to bed patients, but emergency room care also is covered.

Monthly rates: 90 cents for one person; \$2.25 for a family.

**Standard Hospital**—Provides a daily room allowance up to \$3 for 120 days, with up to \$30 for extras.

Monthly rates: 50 cents for one person; \$1.25 for a family.

At least in the beginning the new plan will be available only through employed and other established groups such as Farm Bureaus and cooperative organizations. Such group operation is important in enabling the broadest benefits at the lowest possible cost.

Each group will have the option of deciding which program or programs it wishes: Comprehensive hospital, standard hospital, or surgical. Members of the plan will have complete freedom in choice of doctor and hospital. They will be entitled to maintain their protection permanently, regardless of age, future health or separation from the group through which they enrolled. In the latter case they will make payment directly to the plan.

Because it is a national company, the John Marshall organization is able to provide uniform benefits wherever a member of the Arkansas plan may require health care. Thus, as provided in the comprehensive certificate, a member would have his entire hospital bill paid in any recognized hospital in the world and, if he also carried surgical protection, the same fee would be paid under the surgical schedule as in Arkansas. The protection does not diminish when the member passes beyond state borders on vacations or trips with organizations.

National organization also offers distinct advantages to businesses or industries which have plants or offices both in Arkansas and in other states. All the employees of such firms, whether they live in Arkansas or elsewhere, can be protected with uniform health care benefits.

To make the program truly an Arkansas activity, the John Marshall Company is arranging for local management which will operate under the general supervision of the Joint Committee. Offices will be opened in Little Rock in the near future, and the presentation of the new program to the public will be under way as soon as the necessary literature can be printed and other arrangements completed.

Members of the Joint Committee which developed the program are:



Representing the Arkansas Medical Society: Charles R. Henry, M.D., of Little Rock (committee chairman); Ellery C. Gay, M.D., of Little Rock; P. W. Lutterloh, M.D., of Jonesboro; Alan G. Cazort, M.D., of Little Rock; R. C. Dickinson, M.D., of Horatio, and Charles T. Chamberlain, M.D., of Fort Smith.

Representing the Arkansas Hospital Association: John A. Rowland of Little Rock (committee secretary); the Rt. Rev. Msgr. John J. Healy of Little Rock; M. C. Hawkins, Jr., M.D., of Searcy; Marvin Altman of Fort Smith; Miss Regina Kaplan of Hot Springs, and John A. Gilbreath of Little Rock.

Representing the public: S. P. Dixon of the State Labor Department, Little Rock (labor); Dr. Lippert S. Ellis, dean of the College of Agriculture of the University of Arkansas, Fayetteville (agriculture); James H. Penick, president of the Worthen Bank and Trust Company, Little Rock (business and finance); W. M. Shepherd of the Arkansas Power and Light Company, Pine Bluff (industry), and Edward L. Wright of Little Rock (law).

## OBITUARY



DR. THOMAS F. HUDSON

Today the world suffered a tremendous loss in the person of Dr. T. F. Hudson. Although the

tragedy is focused on Luxora, Arkansas, its scope is not confined to that relatively small community. Dr. Hudson was bigger than a community; he was the personification of the ethics, the honor, the gentleness, the studious efficiency in which reputation his profession as a whole takes a considerable measure of pride.

We, his colleagues, feel that we were in a position to appreciate the qualities of this doctor a little more fully than the majority of his acquaintances because a doctor knows a doctor better than anyone else. It is the unequivocal opinion of his fellow practitioners that the medical profession has lost one of its greatest men.

Dr. C. M. Harwell  
Dr. L. D. Massey  
Dr. W. J. Sheddan  
Dr. P. W. Turrentine

March 20, 1947

FOREST ALLEN BOOMER, 73 years of age, Van Buren, died April 17th. Formerly at Mulberry, he moved to Van Buren about ten years ago and was county health officer for Crawford county. He was a member of the Masonic bodies and of the Scottish Rite Consistory and of the Presbyterian church. Surviving relatives are his wife, three daughters and two sons.

ROBERT P. WOODS, age 63, Altheimer, was killed in an automobile accident May 9th. A graduate of the University of Virginia and of the Tulane University of Louisiana School of Medicine in 1904, he served as a midshipman during the Spanish-American war and had lived at Sherrill before moving to Altheimer in 1905. He was a fellow of the American Medical Association in addition to his membership in the Jefferson County Medical Society and in the Arkansas Medical Society. His wife was seriously injured in the same accident. A son, Lt. Col. Robert C. Woods, is stationed in China.

WILLIAM S. CRAWFORD, age 50, Marianna, died April 26th after a long illness. A native of Mississippi, he graduated from Tulane University in 1919 and had been in active practice in Marianna for over twenty years. Surviving relatives are his wife, a son and two brothers.



# TUBERCULOSIS ABSTRACTS

## *A Review for Physicians*

ISSUED MONTHLY BY THE NATIONAL TUBERCULOSIS ASSOCIATION

**T**UBERCULOSIS among medical students and nurses remains a localized point of resistance to generally effective control measures. This is an anomalous situation when one considers that tuberculin tests, the use of X-ray in diagnosis and the principles of isolation technique are being taught and demonstrated to these students while apparently not fully utilized for their protection. This situation is a professional challenge to schools of medicine and nursing. Society can ill afford to lose the usefulness of these carefully chosen and highly trained young people as they prepare for or begin what should be a life of service in their profession.

### PULMONARY TUBERCULOSIS IN HARVARD MEDICAL STUDENTS

Despite a marked fall in the morbidity and mortality due to pulmonary tuberculosis among the general population and despite advances in its early diagnosis and treatment, tuberculous infection of the lung remains the most serious medical problem that confronts the medical student. Although for more than a century European clinicians had been aware of an apparent high incidence of pulmonary tuberculosis among medical students, a similar high incidence was overlooked in American medical schools until 1930. Since that date several surveys have shown that rates depend somewhat on the geographical origin of the student body, the location of the school, the diagnostic criteria and the care with which the survey was conducted. The most carefully conducted surveys report an incidence in the neighborhood of one or two per cent.

The medical histories of 24 classes of the Harvard Medical School, beginning with the class of 1926, were studied. All available clinical information, including X-ray films as well as sanatorium reports and personal communications, was reviewed in each case.

In all cases considered in this study chest films showed either the appearance of a lesion not previously present or extension of a previously known lesion. Calcified primary complexes, however extensive, thickened apical caps, blunted costophrenic angles and small apparently obsolete nodules were not considered clinically sig-

nificant, and were not included. Supporting clinical evidence for activity included at least one of the following symptoms: cough, hemoptysis, fever, anorexia, weight loss and general malaise. In many cases acid-fast bacilli were demonstrated.

The tuberculin-test figures were derived from the original work sheets of the routine tuberculin surveys. The two-test-dose, intradermal method was used, the results being read in 48 hours. Induration of at least 5mm. in diameter was used as the sole criterion of a positive test. Slightly over 30 per cent of students entering Harvard Medical School as nonreactors became tuberculin reactors before graduation.

Of 3,160 students from 1922 through 1945, it is known that 44 developed pulmonary tuberculosis—an over-all incidence of 1.4 per cent. Because of the incomplete case-finding program prior to 1936, however, undoubtedly many cases went unrecognized. Classes in which no organized case-finding program was conducted had an incidence of 0.9 per cent. In the group which had routine chest films and tuberculin tests on admission and in which many students had chest films in their fourth year, the incidence was 1.1 per cent. In classes in which routine admission chest X-ray examination and tuberculin tests were followed by annual re-examination of non-reactors by means of the tuberculin test, and of most positive reactors by X-ray, the rate was 2.2 per cent.

An incidence almost three times that known before the introduction of a case-finding pro-

Pulmonary Tuberculosis in Harvard Medical Students, Henry P. Brean, M.D., and Lewis W. Kane, M.D., The New England Journal of Medicine, September 5, 1946.



gram is in accordance with the experience of other medical schools.

The duration of disability caused by the pulmonary lesion was closely correlated with the severity of the lesion at the time of its discovery. Students with major lesions have had prolonged periods of disability and several failed to complete their medical education. Students whose lesions were detected by the appearance of symptoms nearly always showed major lesions, whereas just as regularly students whose lesions were detected by routine examination showed minor lesions. Only about half the students with minor lesions required sanatorium care. The average stay in these cases was 14 months.

The effectiveness of routine examination in the detection of early lesions makes frequent examination mandatory. The case-finding program, consisting of routine tuberculin tests and chest X-ray examination on entry and at graduation, has been progressively modified to the semi-annual examination. During the period of annual examination, a large proportion of the lesions became symptomatic, and were thereby detected, before the time of re-examination. In addition, at least three students developed major lesions within a year of having been found to be non-reactors to the annual tuberculin test.

It is believed that six months represents the maximum interval that should be allowed to elapse between routine X-ray examination of tuberculin reactors and tuberculin tests of non-reactors. When students previously nonreactors became reactors in the semi-annual examinations, X-ray examination of the chest should probably be done every six weeks for six months, and every three months for the remainder of the year. The rapidity of progression of the disease in medical students is such that many lesions become symptomatically evident, and are thereby detected, in intervals between routine examinations made only annually.

The adoption of a program in which surveys are made at intervals more frequent than once a year has led to the elimination of almost all symptom-detected cases and of all major lesions. It is believed that a semi-annual examination represents the maximum interval for routine re-examination by X-ray or tuberculin tests not only for medical students but also for nurses and interns.

Although the number of cases of pulmonary

tuberculosis discovered in the last two years of the medical-school course was four times as great as the number developing in the first two years, the incidence of acquisition of tuberculous infection as determined by the tuberculin test was about the same (12 or 13 per cent annually) for each academic year. This constant annual attack rate suggests that factors other than opportunity for infection are responsible for the fourfold increase in cases of pulmonary tuberculosis during clinical training.

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### "CALL ON SOME DOCTORS, SON . . ."

The apple-cheeked investment salesman, freshly weaned from college, sets forth in the world with two pieces of equipment—a brief case for that dignified look, and some sound advice from his elders.

The old-timers in stock and bonds slap him on the back and give him the advice they had when they were young:

"Go call on some doctors, son."

It is sound advice. Doctors, too often, are good prospects for blue-sky investments. When it comes to slick trading in securities, they haven't the time to investigate. They're scientists, analysts of human ailments, artists of the operating room, travellers in the night, worriers, dreamers, thinkers and curers. But not financiers.

Diagnose an illness? Sure. But when a thousand dollars could be made or lost on a one-point change in Giltedge Preferred, they're busy; a child's appendix has ruptured.

Buy the best X-ray machine at the right price? Probably. But skillfully manipulate industrial investments to put their children through college? Or to take care of the family when the old ears are not so sharply attuned to the stethoscope, hands not so sure on the scalpel? Not very often.

A doctor is a busy man and a hopeful one—hopeful that the fees will take care of the future. True, some doctors are wealthy, or near it. To most, wealth is just something someone else enjoys. But many doctors, lulled by the crowded waiting rooms which went hand-in-hand with the war-born doctor shortage, figure they'll be pretty well set for retirement, the way fees are piling up.

Yes, the doctor needs a "bullet-proof" investment, and the United States has provided it in



Savings Bonds. We all know that, but just to make it available isn't enough.

Most doctors need something more. In business matters they need a string tied around a finger. The Government is offering this to them in the new Bond-a-Month Plan. Your bank ties the string, gives it a yank every month. And all the doctor has to do is leave it there. Wilson Mizner said: "The gent who wakes up and finds himself a success hasn't been asleep." As to planning his future, once the doctor has invested in Bond-a-Month, he can give all his attention to his important work.

Before getting down to what the Bond-a-Month Plan can do for the non-salaried doctor, let's take a look at some of the facts in the case of the average practitioner. He's busy, more of late than ever before. His routine is hospital calls, perhaps an operation or two, office hours, house calls, office records, telephoning, more calls after dinner. Every so often a baby fails to realize the doctor has a schedule, or someone breaks a leg, or gets measles. Even the specialists work no 9-to-5 day.

The U. S. Department of Commerce has made studies of doctors' incomes, based on reports of a sample of the 129,000 men and women in private practice in 1940. The studies show that the income rises slowly to a maximum in the early 50's and then starts dropping. From 35 to 54 is the real money-making period.

At 35, most doctors have begun to pay off their starting-in-business debts, have built up a small neighborhood practice and are becoming known. Their practice grows with ability. By the time they are 54, other doctors, young and vigorous, have come in with new methods, machines, theories. They make inroads into the established practice of the veteran. The older man no longer so willingly drives out into the country on sick calls. Office hours are shaved a little at the start and the end of the day. There are fewer operations.

And somehow, without the doctor's really knowing why, the bank balance doesn't hold up the way it used to.

To come as close as we can to keeping the horse in front of the cart, let's see what Bond-a-Month will do and then explain why this is the solution to the doctor's problem of saving for future security.

Bond-a-Month opens systematic saving through Government bonds to anyone with income and a

checking account in a bank. Until now this was available only through Payroll Savings. It operates this way:

The depositor who wishes to buy a bond each month signs a card authorizing the bank to deduct the purchase price from his checking account. The bank issues the bonds and delivers them to the customer monthly. The periodic bank statement shows payment for the bonds.

And from the first and the only time the doctor signs his authorization card, he has nothing else to do except open the envelopes the bank sends him with the bonds inside.

What does the doctor need?

1. He needs some sort of arrangement for his financial future because, according to studies of his profession, incomes of physicians are much more responsive to change in the national income than are the incomes in other professions. If the national income drops and patients no longer can afford to call on the doctor so often or to pay him as quickly, a doctor's bankbook will feel the change.

2. In most instances, the doctor has no social security or pension to fall back on. Thus, he needs something to serve as an old-age reserve.

3. He needs simplicity—an arrangement which does not call for continual checking, manipulating, buying and selling.

4. He needs safety. He cannot afford to take the risks which must be protected by constant market vigilance, by buying and selling strategically.

A savings bond plan should be the foundation upon which the doctor builds his security. There is no safer investment in the world than Savings Bonds. There is no riskless investment which pays such a guaranteed return.

Consider:		
If you invest monthly under Bond-a-Month Plan	In five years you will have	In ten years you will have
\$ 37.50	\$ 2,319.00	\$ 4,998.00
75.00	4,638.00	9,996.00
100.00	9,276.00	19,992.00
300.00	18,552.00	39,984.00

Here, for the doctor himself, are vitamins E, F and G, thoroughly tested and always compounded with interest. These "vitamins" ease common symptoms of post-middle age such as chronic worry and doubt. They are available at a bank near you. And with millions of current users, we can make this unusual guarantee: one and a third times your money back if you are satisfied.



# THE JOURNAL

OF THE

## ARKANSAS MEDICAL SOCIETY

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## EDITORIALS

### OUR PRESIDENT

Lorenzo T. Evans, Batesville, installed as the 71st President of the Arkansas Medical Society at Little Rock, April 19th, was born at Mount Pleasant, Arkansas, April 24, 1880. He attended the Mount Pleasant Academy and Sidney Collegiate Institute and graduated from the Memphis Hospital Medical College, now the University of Tennessee School of Medicine, in 1907. Postgraduate work has been completed at Tulane and other institutions. He has had an unusually active interest in the affairs of organized medicine in Arkansas, having served as President of the Independence County Medical Society, of the Second Councilor District Medical Society, as Vice-president of the Arkansas Medical Society, as Councilor from the Second District, eight years a member of The State Medical Board of the Arkansas Medical Society, serving two terms as president, as delegate to the Arkansas Medical Society from his county medical society several times, and he is, in addition, a fellow of the American Medical Association and a member of the Southern Medical Association. His civic interests are also extensive, being a

charter member and past-president of the Batesville Rotary club, a member of the Batesville Country club, the Chamber of Commerce, member of the Masonic bodies, as an elder in Presbyterian church and a member of District Three Appeal Board, Selective Service, from November, 1940, to March 31, 1947. He has attended every meeting of the Arkansas Medical Society since 1911. With experience in all the affairs of organized medicine from actual participation, with enthusiasm for improving the worth of the Society to the members and the public and with an unselfish desire to serve his fellowman, we may well look forward to a continuation of the excellent progress the Arkansas Medical Society has made in recent years with President Evans as our leader.

### THE EMIC PROGRAM

Acting upon the recommendation of the House of Delegates of the Arkansas Medical Society at its January 27th Special Session, the Arkansas State Board of Health has moved to terminate the Emergency Maternal and Child Welfare program as administered by the state health agency as of May 31, 1947, with the understanding that all approved contracts entered into prior to June 1, 1947, will be cared for as in the past.

Under this ruling all initial applications must be received in the office of the Arkansas State Board of Health by May 31, 1947, in order to be approved. This will include the care of an infant whose mother, for any reason, was not authorized for care under the program. The program, it will be remembered, includes an agreement to give care to the infant when sick throughout its first year of life, if the mother was approved for maternity care. The records of the Arkansas State Board of Health show that a total of 19,351 mothers and 1,584 infants received care under this program from its inception to April 10, 1947.

### PROFESSIONAL EDUCATION IN CANCER

The joint professional education committee of the Committee on Cancer Control of the Arkansas Medical Society and the Arkansas Division, American Cancer Society, Henry G. Hollenberg, Louis P. Good and Fred H. Krock, have inaugurated a program for education of the physician on cancer. This committee presented Dr. Warfield M. Firor, Baltimore, at the 71st annual session of the Society, April 19th and has now completed its sponsorship of nine lec-



tures in the state as follows: April 28th, Texarkana; April 29th, El Dorado; April 30th, Hot Springs National Park; May 5th, Pine Bluff; May 7th, Jonesboro; May 9th, Batesville; May 19th, Fayetteville; May 20th, Harrison, and May 21st, Conway. Guest speakers were Drs. John V. Goode, Dallas; Arthur Grollman, Dallas; A. S. Sala, New York; and E. D. Sugarbaker, Jefferson City, Missouri. Diagnostic cancer clinics sponsored by the county medical society and the Arkansas Division, American Cancer Society, were coincidentally held at El Dorado, Batesville, Jonesboro and Fayetteville. Interest in the courses has been encouraging to the committee and it is contemplated that additional courses will be presented later.

### NARCOTIC PRESCRIPTIONS BY TELEPHONE

The Journal has previously called attention to the concern with which the Federal Narcotic Bureau is viewing the telephonic prescribing of narcotic drugs. This is not permissible under narcotic regulations and physician and druggist alike are guilty of violation when it is done. It is urged that members fully cooperate with the provisions of the narcotic regulations in this respect, respecting the druggist's insistence that the law as it concerns both the physician and the druggist receives proper compliance.

### RANDOM THOUGHTS OF THE SECRETARY

April 25th. With the gay company of Goldstein, Hawkins, Koenig and Gates to Poteau tonight where Shuffield and Hoge ably competed in talent appeal to the district society meeting this afternoon, leaving it to our group to fully appreciate the offerings of the church ladies at dinner and the general discussion of organizational medical affairs.

April 30th. Those supervisory employees now on telephone switchboards are learning what all doctors know—the American public lives in a constant state of emergency.

May 1st. To Camden where many are gathered to share in the pleasure of celebrating that J. S. Rinehart has been in practice at Camden fifty years today and almost all manner of transportation is ours on this trip: commercial air line, Cotton Belt train, William Hibbitts' hurried Chevrolet, taxicab (white and negro).

May 5th. The afternoon spent traveling to and from Waldron and waiting to give testimony in court, yet because of high legal strategy, not permitted to even come into the courthouse and finally departing without the dubious pleasure of cross-examination. Tonight Stewart ably reports on attendance at a refresher course but disclaims any part of the newer procedures which get obstetrical patients out of bed in the sixth day when Earle Hunt says his piece on this fad.

May 8th. To Clarksville where the Johnson County membership well demonstrates a pre-war and pre-depression skill in banquet arts, giving us cause to now remember Clarksville as the home of "fried chicken" rather than of the famous "Elberta peach." In concluding the ses-

sion, we take opportunity to pass the hat for the benefit of the School of Pharmacy, College of the Ozarks, a meritorious undertaking.

May 13th. With the Cancer Commission this noon, the Governor attentively staying with the full agenda, and then home by Braniff, meeting Jack McDonald of Tulsa, whose visit and meeting with the county society inspires much good fun.

May 14th. Tonight Jones addresses the graduating nurses and we will give him precedence over many a professional orator who has delivered this address in past years.

May 18th. The committee on executive secretary hears the enthusiastic Dick Graham of Oklahoma, who it is our pleasure to have with us, but whose travel plans are once again confused, this time necessitating that we give up our plane seat and travel homeward on the Missouri Pacific, our first train trip from Little Rock in many a day, and pleasant at that.

May 19th. To Fayetteville's Cancer Day with an active clinic in the afternoon and to hear Sugarbaker speak on radical, and we mean radical, surgery in the evening, coming home with some hope that Sisco, Senior, will really donate that five acres for a medical men's summer resort.

May 20th. And to think that the President meant Independence and Kansas City when he spoke of a scarcity of competent physicians!

May 21st. Tonight the Auxiliary entertains in accustomed gracious and satisfying manner at a picnic on Hoge's farm, and in our efforts to get there, we decline to follow Goldstein, knowing that he could never take the right road, which he did this time. Miraculously Shippey is saved from a fall through the bridge into the swollen Arkansas river, giving that boy much free time on this earth. Among other activities, we ride horseback for the first time since we delivered papers.





## PROCEEDINGS OF THE SOCIETIES

The Sebastian County Medical Society was addressed May 13th by J. E. McDonald, Tulsa, on "The Doctor and Malpractice."

J. K. Thompson, Secretary.

The Johnson County Medical Society held its first annual banquet since February 20, 1941, on Thursday evening, May 8, 1947, at 7:30 o'clock, at the Gayety Club. There were 82 doctors from various parts of the state in attendance. The local druggists were also guests of the Society.

Dr. Earle H. Hunt served as toastmaster. Dr. Fred Krock of Fort Smith was the principal speaker. The entertainment also included musical numbers by Logan Green and Rudolph Jorgenson, students from the College of the Ozarks, and Mr. and Mrs. George Lee.

The dinner was prepared and served by the Altar Society of the Holy Redeemer Church.

The visiting doctors contributed \$115.00 toward the building fund of the School of Pharmacy of the College of the Ozarks after an appeal was made to them by Dr. W. R. Brooksher, Secretary of the Arkansas Medical Society. The members of the Johnson County Medical Society added to this sum \$35.00 in order to contribute one builder's share, \$150.00.

G. R. Siegel, Secretary.

The First Councilor District Medical Society met at Tyronza May 1st for the following program: "Greetings from the Arkansas Medical Society," L. T. Evans, Batesville; "Greetings from the Mid-South Medical Association," Frank Acree, Greenville, Mississippi; "Greetings from the Southern Medical Association," C. P. Loran, Birmingham, Alabama; "Diagnosis and Treatment of Diseases of the Prostate," T. D. Brown, Little Rock; "The Autopsy: From the General Practitioner's Viewpoint," M. H. Grossman, Tyronza; "Common Fractures and Problems of Interest," F. Walter Carruthers, Little Rock; "The Future of the Small-Town Physician and the Small-Town Hospital," W. H. Anderson, Booneville, Mississippi, and "Vagotomy: The Indications, Technique and Results," R. L. Sanders, Memphis.

The Third Councilor District Medical Society met at Wynne May 21 for the following program: "The Management of Syphilis," Vonnie A. Hall, Memphis; "Some Common Problems in Obstetrics," Chas. R. Henry, Little Rock; "The

Diagnosis and Treatment of Infectious Hepatitis," John D. Hughes, Memphis; "Routine Examination of the Young Baby," Chas. Wallis, Little Rock, and "Quackery," Frank L. Roberts, Memphis. Following the scientific program, dinner was served with A. F. Barr, Cherry Valley, toastmaster.

The Benton County Medical Society met in dinner session at Bentonville May 5th for the following program: "The Stader Splint," B. E. De Tar, Joplin, Missouri, and "Pediatrics," B. H. Williams, Joplin, Missouri.

G. C. De Bolt, Secretary.

The Fifth Councilor District Medical Society met in dinner session at Magnolia May 13th for the following program: "Anatomy of the Abdominal Wall," Jeff Banks, Little Rock, and "Neurovascular Surgery," Henry G. Hollenberg, Little Rock.

J. P. Price, Jr., Monticello, has been appointed a member of the Arkansas State Board of Health.

J. K. Thompson, Fort Smith, has been elected a member of the American College of Physicians.

Physicians from many sections of Arkansas attended the 50th Anniversary party of Dr. J. S. Rinehart Thursday night at the Rinehart home. Dr. Rinehart, dean of Camden physicians, observed his 50th anniversary in the practice of medicine here in Camden. He came here on May 1, 1897, and has been one of the outstanding physicians in South Arkansas since that time. The Ouachita County Medical Society held its regular meeting on this occasion and chose it to honor its oldest member.

Several gifts were presented to the Camden physician and honors were heaped upon him by his colleagues. Prior to the program, dinner was served to more than 40 guests.

In the center of the dining table a huge anniversary cake adorned with many candles was placed. This cake was later served to the guests. The home was beautifully decorated with flowers which formed a fitting setting for this occasion.

Dr. George R. Livermore of Memphis, and Dr. W. R. Brooksher of Fort Smith were the principal speakers at this event.

Mrs. Rinehart received the guests with her husband.

This event will long be remembered by the



physicians and many friends of Dr. Rinehart.

—Camden News,  
May 2, 1947

Erner Jones, formerly of Little Rock, has located at Brinkley.

L. M. Henry, Fort Smith, attended the recent symposium on allergy at the University of Kansas.

Chas. R. Henry and Geo. R. Steinkamp have been elected directors of the Little Rock Philharmonic Society.

The following attended the American College of Physicians' session in Chicago: A. A. Blair, Chas. T. Chamberlain, Fort Smith; Chas. H. Lutterloh, E. Driver Rowland and Euclid M. Smith, Hot Springs National Park, and J. N. Compton, John E. Greutter, O. C. Melson and J. S. Levy, Little Rock.

## PERSONALS AND NEWS ITEMS

Joe Verser, Harrisburg, C. Ray Williams, Morrilton, and L. J. Kosminsky, Texarkana, have been appointed to four-year terms on The State Medical Board of the Arkansas Medical Society.

H. J. Mayfield addressed the graduating class at Warner-Brown Hospital, El Dorado, recently.

I. F. Jones addressed the graduating class at Saint Edwards Mercy Hospital, Fort Smith, May 14th.

The following attended the March meeting of the Medical Association of the Missouri Pacific Railroad in Saint Louis: B. E. Barlow, Dermott; T. D. Brown, Little Rock; E. J. Byrd, Camden; P. B. Carrigan, Hope; S. W. Chambers, Cotter; A. E. Cox, Helena; G. E. Cannon, Hope; C. W. Dixon, Gould; C. S. Early, Camden; S. C. Fulmer, Little Rock; J. E. Greutter, Little Rock; J. B. Hesterly, Prescott; C. G. Hinkle, Batesville; H. W. Hundling, Little Rock; G. H. Johnson, Little Rock; O. J. T. Johnston, Batesville; C. W. Jones, Benton; J. M. Kolb, Clarksville; M. J. Kilbury, Little Rock; L. J. Kosminsky, Texarkana; N. J. Latimer, Corning; C. G. Leverett, McGehee; J. S. Levy, Little Rock; Geo. V. Lewis, Little Rock; E. D. McKnight, Brinkley; Paul L. Mahoney, Little Rock; S. B. Moss, McGehee; H. E. Murry, Texarkana; B. V. Powell, Camden; D. A. Rhinehart, Little Rock; M. V. Russell, El Dorado; W. L. Sadler, Little Rock; W. D. Smith, Texarkana; W. H. Toland, Nashville; H. O.

Walker, Newport; L. M. Weast, Yellville; J. B. Wharton, El Dorado; Thos. Wilson, Wynne; W. O. Young, Russellville, and J. W. Smith, Little Rock.

A. A. Blair, Fort Smith, has been elected Arkansas Governor for the American College of Physicians.

A. C. Shipp, Little Rock, addressed the Saint Francis County Tuberculosis Society at a recent meeting in Forrest City.

W. B. Grayson is now associated with H. Fay H. Jones in the practice of urology at Little Rock.

Dr. and Mrs. T. G. Porter have returned to Hazen from a six months' stay in Phoenix, Arizona.

J. E. Beasley, Blytheville, and J. C. Land, Walnut Ridge, took postgraduate work at the University of Kansas during April.

Henry G. Hollenberg, Little Rock, recently took special work at Johns Hopkins Hospital, Baltimore.

C. C. Long has been elected president of the Ozark Rotary club.

W. J. Jones, Glennwood, recently addressed the Amity Lions club on "Health in the Community."

R. B. Robins recently addressed the Camden Rotary club on the activities of the Arkansas Division, American Cancer Society.

T. N. Rodman has purchased the Brownson Hospital at Leachville and has moved from Newport to Leachville.

F. A. Corn and H. S. Stern conducted a diagnostic cancer clinic at Clinton recently.

The following have been appointed consultants to the Army and Navy General Hospital, Hot Springs National Park: Geo. B. Fletcher (neurology), E. Driver Rowland (cardiology), Chas. H. Lutterloh (internal medicine), and H. King Wade (urology).

Kenneth A. Siler has moved from Dumas to Siloam Springs.



# PROCEEDINGS OF THE SEVENTY-FIRST ANNUAL SESSION ARKANSAS MEDICAL SOCIETY

Robinson Auditorium, Little Rock, Arkansas

April 17, 18 & 19, 1947

## FIRST SESSION, HOUSE OF DELEGATES

Thursday Afternoon, April 17, 1947

The meeting was called to order by H. King Wade, President.

The Credentials Committee (Raymond Cook-D. W. Goldstein) reported that the credentials of the delegates had been examined, found correct and that a quorum was present. On roll call, the following delegates and county society members seated as delegates by action of the House of Delegates (motion by Rush-Murry) were present: ARKANSAS—S. A. Drennen; ASHLEY, J. R. Hipsley; BENTON—Geo. M. Love; BOONE—D. L. Owens; BRADLEY, R. E. Greene; CARROLL—W. A. Carter; COLUMBIA—Paul Sizemore; CLARK—Joe W. Reid; CLAY—F. H. Jones; CLEVELAND—J. H. Scroggin; CRAIG-HEAD-POINSETT—L. H. McDaniel; J. H. McCurry; CRAWFORD—S. D. Kirkland; CRITTENDEN—L. C. McVay; CROSS—Thos. Wilson; DESHA—H. T. Smith; DREW—J. P. Price, Jr.; GARLAND—G. C. Coffey, Chas. H. Lutterloh, E. Driver Rowland; GRANT—Miles F. Kelley; HEMPSTEAD—W. L. Sims; HOWARD-PIKE—W. H. Toland; INDEPENDENCE—Rector Hooper; JEFFERSON—Fred Hames; JOHNSON—J. M. Kolb; LEE—C. W. Chaffin; LINCOLN—C. W. Dixon; LITTLE RIVER—Joe Shelton; LOGAN—S. P. McConnell; LONOKE—S. S. Beaty; MILLER—H. E. Murry; MONROE—E. D. McKnight; NEVADA—A. S. Buchanan; OUACHITA—J. P. McAlister; POPE-YELL—Ellis Gardner; PRAIRIE—J. C. Gilliam; PULASKI—Henry G. Hollenberg, Harvey Shipp, Raymond C. Cook, C. C. Reed, Jr., Hoyt R. Allen, R. J. Calcote, B. A. Bennett, A. M. Washburn, A. C. Kolb; RANDOLPH—J. R. Loftis; SEBASTIAN—Fred H. Krock, D. W. Goldstein; SEVIER—R. C. Dickinson; UNION—E. J. Munn, M. V. Russell; WHITE—S. J. Allbright; WASHINGTON—A. H. Hathcock.

Other members of the House of Delegates present were: President Wade, President-Elect Evans, Councilors Lutterloh, Hawkins, Rush, Crandall, Wilson, Dickinson, E. M. Smith, Gay, Gladden and Hunt, Treasurer Mahoney, Secretary Brooksher and Past-presidents S. J. Allbright,

W. H. Mock, M. E. McCaskill, M. L. Norwood, L. J. Kosminsky, R. B. Robins, Jos. F. Shuffield and H. T. Smith.

By motion (Murry-Cook) the minutes of the 70th annual session and of the January 26, 1947, special session were adopted as published.

President Wade announced the following Reference Committee: H. T. Smith, Chairman; P. W. Lutterloh, R. C. Dickinson and L. H. McDaniel.

President Wade delivered the President's Address to the House of Delegates.

The committees of the Society reported in order, each report being referred to the Reference Committee.

## COMMITTEE ON SCIENTIFIC WORK

Chas. H. Lutterloh, Chairman

The Committee on Scientific Work has attempted to give you a program of general interest. We feel that we have been exceptionally fortunate in securing as guest speakers medical men of outstanding ability in their respective fields. We are pleased with our in-state speakers and we have attempted to see that all sections of the state are represented. We have extended the staff of the Army and Navy General Hospital an invitation to appear on the program. They have kindly accepted, and this morning we heard an excellent paper by staff members. This is an excellent hospital, and since so many of our members have recently been a part of the Armed Forces, it seemed logical to make them feel as if they were a part of our organization. In like manner our medical school has asked three of its faculty to contribute to our program. The departments of physiology, chemistry, and medicine will be represented on tomorrow's program and I am sure they will make worthwhile contributions. Again we have called on the staff of one of our state institutions, the State Tuberculosis Association, and Dr. J. B. Riley will be the essayist from that group. It is the hope of the committee that those who attend this year's meeting will find that they have been stimulated and benefited by the program.

## COMMITTEE ON MEDICAL EDUCATION AND HOSPITALS

Euclid M. Smith, Chairman

We desire to submit for your consideration and approval the following report of the activities of this committee:

During the months of June, July and August, 1946, the various members of this committee had occasion to meet informally and discuss some of the many problems of the University of Arkansas School of Medicine. One of the principal matters discussed was the operating deficit with which the School of Medicine and University Hospital were faced during the fiscal year. A rather intimate accounting was accomplished, and it was found that in plan-



ning the budget for the fiscal year, the budget planners of the medical school, either through oversight or lack of knowledge of the monetary requirements for this operation, failed to include several rather large items of expense, which naturally reflected upon the economic operation of the School of Medicine and University Hospital.

Briefly, the medical school appeared to be faced with an operational deficit of approximately \$130,000.00. Obviously, such a deficit could only be overcome by either a donation from the University of Arkansas, which was impractical, due to the financial status of the University of Arkansas, or by liquidating a large part of the surplus which had been built up for the purpose of furnishing the new hospital when constructed. It was decided that all donations which had been made to part-time physicians of the city of Little Rock would be stopped, and immediately there was a very definite resistance on the part of those individuals to this move. This resistance was manifested by a petition on the part of these part-time physicians, which stated in substance that, if they did not obtain these moneys, they would not make any contribution to medical education.

An inspection of the organizational structure and administrative functions of the medical school and University Hospital disclosed a lack of appreciation of some of the very fundamental features of good administration and accounting. It was alleged at this time by some of the school authorities that no cooperation was given by the University of Arkansas as relates to financial matters and that the University authorities felt unkindly towards the medical school and were not appreciative of the detailed operation of the medical school and University Hospital.

These facts, coupled with many others which will not be mentioned in this short report, led to a called meeting of this committee, which was attended by all members of the committee, and decision was reached that it would be necessary to request the resignation of Dr. Byron L. Robinson, the dean of the School of Medicine, and that a successor would be chosen by the proper University authorities. Acting in conjunction with the Board of Trustees, the name of Dr. H. C. Chenault was submitted and was given favorable approval by the Board of Trustees of the University of Arkansas.

Dr. Chenault assumed office on October 1, 1946, and began an intimate study of the operation, which led to the projection of a re-organization of the various functions of the School of Medicine and University Hospital, which was approved by your committee and later by the Councilors and the Board of Trustees.

Because of the precarious position which the school occupied with relation to full-time professors and instructors in the basic science years of the School of Medicine, a ten percent increase in salaries for this group, consisting of fourteen (14) in the aforementioned category, was approved by the Board of Trustees and became effective November 1, 1946. This increase in salaries enabled the school authorities to hold those individuals who were at this time planning to leave and accept employment elsewhere. A continuation of the part-time salaries of various physicians of Little Rock was proposed and accomplished by your committee and the Board of Trustees.

Your committee met with various other interested committees during the month of December, 1946, and a general discussion was had as concerns the future of the medical school with special reference to the needs and requirements of the school which would be obtained from state-appropriated funds. At this time your committee, operating closely in conjunction with the Board

of Trustees, decided that the fiscal budget of the School of Medicine and University Hospital, which had previously been approved by the Board of Trustees, would be submitted along with and an integral part of the budget of the University of Arkansas. This budget was approved by the Pre-budget Committee of the State Legislature in December.

In planning the operating budget, your committee worked with the school authorities, developing which was believed to be a fair requirement for the biennium. This budget increased the monetary expenditure of the School of Medicine by \$50,000.00 each year of the biennium and increased the expenditure of money at the University Hospital by \$72,000.00 each year of the biennium.

During the time of the assembly of the Fifty-sixth Legislature, the following measures were passed which reflected upon medical education and hospitals: \$1,000,000.00 was appropriated from public institutions funds under the provisions of Senate Bill No. 332 for the purpose of constructing a hospital to be operated in conjunction with the medical school, under provisions of Senate Bill No. 385 as amended \$300,000.00 each year of the biennium was made available from the State Construction Fund. The regular University allotment was passed, which would accrue each year of the biennium \$2,400,000.00. This amount was \$185,000.00 a year less than the operating budget which was approved by the Pre-budget Committee. At a recent meeting of the Board of Trustees, the original operating budget of the School of Medicine was cut approximately seven percent, but it is believed that by the use of most economical measures it will be possible to operate during the two years of the biennium with this cut of seven percent under the original requirement.

#### REPORT OF COMMITTEE ON HEALTH AND PUBLIC INSTRUCTION

T. T. Ross, Chairman

##### COMMUNICABLE DISEASES IN 1946

The year of 1946 was one of the most favorable from the health standpoint, as indicated by the reports of communicable diseases, of any of the ten years since the organization of the Division of Communicable Disease Control within the State Health Department. With the exception of poliomyelitis, which recorded the greatest number of cases (403) of this disease ever recorded in Arkansas, most of the other state communicable diseases were reported less frequently in 1946 than in 1945. Localized epidemics of measles and mumps occurred but never reached high prevalence. Tularemia showed an increase over the reported incidence in 1945. Most of this increase was in areas of the state where ticks were particularly numerous and troublesome. In this connection it may be reported here that, from records returned to the State Health Department by the physicians of Arkansas over a period of years, tularemia was found to be transmitted by ticks in about 50 percent or more of all infections. The tularemia cases contracted by handling of rabbits, squirrels, and other wild game accounted for the balance. Tularemia in Arkansas is therefore present throughout the year, with tick-transmitted infections being prevalent in the warmer months and rabbit handling infections prevalent in the colder months.

Typhoid fever continues to decrease in prevalence with an even 100 cases reported in 1946. The downward trend of this disease has been practically uninterrupted during the past ten years from a reported number of 645 in 1937 to the 100 in 1946.

Endemic typhus fever, on the other hand, has shown



an increasing prevalence during the past five or six years, and although it has not as yet become of major importance, programs have been instituted for the destruction of rats and rat-fleas in the areas where the disease has been reported.

Diphtheria showed a favorable decrease in 1946, which reversed the trend of the previous three years.

#### VENEREAL DISEASE CONTROL

During the year 1946 an average of only fifty-seven Venereal Disease Diagnostic and Treatment Clinics in local health departments affiliated with the Arkansas State Board of Health was maintained throughout the state. An average of thirty-eight part-time venereal disease clinicians who are practicing physicians in the local communities supervised and conducted the clinics. During the year 1946 and at the present time the Venereal Disease Control Program differs greatly from its wartime aspect, as well as its operation. However, the basic principles of venereal disease control remained the same with reference to epidemiology, early case finding, and case holding. The state program still emphasized the early diagnosis of venereal disease, the immediate institution of adequate treatment, the finding of contacts to known cases of communicable venereal disease, and the prompt reporting of all cases of venereal disease diagnosed and treated by private physicians.

Venereal disease education, due to the lack of adequate trained personnel, was not further expanded during the year 1946. However, special venereal disease educational programs as well as the furnishing of numerous pamphlets, posters, motion picture films, lectures, etc., were introduced and furnished by the Arkansas State Board of Health to interested communities as well as civic organizations throughout the state.

The Arkansas State Board of Health has reason to believe that the venereal disease rate in Arkansas is on the increase, which belief is supported by the fact that venereal disease rates are increasing on a national basis. The increase is not alarming and was expected to follow the termination of hostilities of World War II during the period of readjustment of great masses of population that had been displaced through the war effort.

Epidemiological services in early case finding have been and are still being improved throughout the state. The successful completion of epidemiological investigation of venereal disease suspects and contacts has averaged approximately 58 percent. Such services and efficiency have been contributing factors in increasing the number of early cases of syphilis, gonorrhea and other venereal diseases diagnosed early and adequate treatment instituted. Local health department diagnostic and treatment facilities have not been expanded or improved basically. However, such facilities at the Medical Center located in Hot Springs, Arkansas, have been expanded and improved. The Medical Center is operated by the United States Public Health Service in cooperation with the Arkansas State Board of Health. Indigent cases as well as early communicable cases of syphilis were referred to the Medical Center by local health departments for further diagnosis, evaluation study, or treatment. Private physicians throughout the state refer indigent as well as complicated cases of venereal disease to the Medical Center for diagnosis, evaluation study, or treatment. Many private physicians used these facilities during the year 1946. Patients are admitted to the Medical Center upon receipt of a letter evaluating the case of the patient as well as a request for admission, signed by the private physician.

The advent of penicillin in the treatment of syphilis

and gonorrhea has been proved to be very effective and a great time-saver to both the physician and the patient. However, the new schemes of treatment including penicillin have not been followed for the necessary period of time to warrant the complete revision of present standard schedules of treatment.

The Arkansas State Board of Health continued to operate a venereal disease patient transportation system on a weekly schedule to the local communities throughout the state. An average of approximately 500 patients monthly, referred or transferred by local health departments or private physicians, were transported to and from the Medical Center. In all sections of the state wherein the venereal disease rate warranted such transportation services, such services were provided.

#### TUBERCULOSIS CONTROL

During the past year the Division of Tuberculosis Control has been busy trying to put into effect the ambitious program drafted by Dr. A. C. Curtis, director of the division, now at Columbia University taking post-graduate work in Public Health. Funds and personnel donated by the Tuberculosis Control Division of the United States Public Health Service in cooperation with the State Tuberculosis Association have been a great help. Our case finding activities can now be expanded considerably, thanks to three new 70 mm. photofluorographic units, one of which has already arrived, and three stationary units which are, or will be, at the Little Rock City Health Department, the State Hospital for Nervous Diseases, and the University Hospital. Food handlers and other persons desiring health certificates will be X-rayed at the City Health Department, and all admissions to the State Hospital and to the University Hospital will be X-rayed by means of the machines at these institutions.

Our new record system, consisting of a central register in the state office and local registers in the individual counties, is well begun, and the latter's files are being re-established and codified as rapidly as possible. Until the local registers are completed, many valuable statistics cannot be had, and, of course, the first step in any adequate control program is an accurate evaluation of the problem at hand. When the registers in the counties are completed, we will be better able to determine where our greatest problems are, and emphasis can be directed to those locations and phases that might otherwise be overlooked, thus multiplying our efficiency many times.

Our relations with the two state sanatoria are excellent, and records are exchanged constantly to the advantage of all concerned. The lack of beds for negroes remains a pressing problem, but construction of more is under way at McRae Sanatorium, and this should relieve the situation somewhat.

Although the rehabilitation of arrested cases still leaves much to be desired, the Department of Vocational Rehabilitation in the State Department of Education is now in a better position to assist in this important aspect of treatment and is working more closely with Dr. J. D. Riley, superintendent of the Arkansas Tuberculosis Sanatorium, State Sanatorium, Arkansas, and Dr. Hugh A. Browne, superintendent of McRae Memorial Sanatorium, Alexander, Arkansas.

One of the most satisfying changes noted recently has been the increased interest and cooperation shown by the various medical and lay groups throughout the state as evidenced by requests for educational material, X-ray clinics, and the large attendance at clinics. Without this help, no program could be successful.

#### MATERNAL AND CHILD HEALTH

In the Maternal and Child Health program the return



of physicians from the Armed Forces made possible the resumption and extension of a number of activities. A few child-health conferences were started and have flourished with the active help of community groups. The establishment of a number of prenatal clinics for negroes made practical in those counties served the insistence that midwives accept no patients, except in emergency, who had not been under prenatal care by a physician.

The midwife program received considerable emphasis. Due to lack of staff it was possible to reach only relatively few counties with the intensive program of instructions by a nurse-midwife, but all counties which had health department personnel and a midwife problem were stimulated.

Equipment furnished by the division for the care of premature infants was used to a greater extent than ever before.

In efforts for the promotion of the health of school children stress was placed on assisting school authorities and parents in providing safer school environments, on the keeping out of school of children with any suspicion of communicable disease until his return is declared safe by a physician and on referral to the family physician for examination and, if necessary, treatment, all children before they enter school and any child showing any apparent deviation from the normal.

Books on maternal and child health for physicians and other professional workers, as well as for parents, were accumulated in the State Health Department library and small carefully selected collections were placed in local public health departments. Visual aid materials, such as motion picture films, were accumulated.

#### NUTRITION SERVICE

The nutrition service has continued to promote optimum nutrition for everyone in Arkansas. Special emphasis has been placed this past year on diet needs during pregnancy and lactation. The nutrition consultant has spent much time with midwives, teaching them what the mother should eat before the baby comes, during labor, during the lying-in period, and while she nurses the baby. Simple diet sheets were prepared for the mothers, and the midwives were urged to encourage all mothers to follow the diet suggestions. In July and August concentrated service was given by three staff nutritionists who were employed on a temporary basis. Midwives and their patients were organized into groups. Six nutrition and food preparation lessons were presented to each group. By having that much training in the importance of food to health, greater interest was stimulated. It is believed that some improvement in eating habits resulted in these groups.

#### HYGIENIC LABORATORY

During the year 1946, the Hygienic Laboratory examined a total of 166,658 specimens. This is 10,258 less than during the year 1945. This decrease is due chiefly to the inactivity of the Selective Service. This decrease in numbers has permitted an increase in the more expensive and time-consuming studies. The laboratory also prepared and distributed sufficient typhoid vaccine to immunize 103,843 persons during this period.

In addition to the general types of examinations as made during the year 1945, the cultural examination of body fluids for the tubercle bacillus was instituted in March, 1946. There were 261 such specimens examined, giving 19 positives which would have been overlooked by other technics. Plans have been made and materials are on order to increase the production of biological supplies, namely, diphtheria toxoid and pertusis vaccine.

The Serology Division participated in the Annual

Syphilis Serology Survey as conducted by the United States Public Health Service to determine the accuracy of technics being used by the state laboratories in the diagnosis of syphilis and was found to have the third most sensitive Kline test as well as the sixth most sensitive Wassermann test with no loss in specificity.

The personnel changes have been fewer this past year than in any of the last five years, and a point of stabilization appears to have been reached. With the continuance of this stabilization and the promised increase of space, it is hoped that the Quantitative Kahn test can be offered to all physicians for the study of their treated cases of syphilis.

#### ENVIRONMENTAL SANITATION

Environmental sanitation activities of the State Board of Health are conducted by its Bureau of Sanitary Engineering. This bureau coordinates and applies sanitary science and engineering to problems of health protection for rural and urban populations. Its work in general deals with public water and sewage works, milk and milk products, malaria and typhus control, food and drug control, and approval of plans for swimming pools and related activities, and it acts in an advisory capacity with other divisions relative to the sanitation program in local health departments. There are approximately 190 public water supplies and 111 public sewerage systems in Arkansas. During the past year, plans for 22 water and 34 sewage works or extensions thereto have been reviewed and approved for municipalities. Construction called for on these plans approximates \$750,000.

**Food and Drug:** The State Board of Health established a Division of Food and Drug in October, 1946. Although our Food and Drug law, which closely parallels the Federal Food and Drug Act, was enacted some years ago, scarcity of trained personnel and the war delayed setting up this division. Personnel of the division have devoted most of their time to the three major food industries in the state: canning plants, restaurants, and slaughter and packing houses. The canning plant sanitation program is well under way and is receiving the wholehearted support of the industry.

**Milk Control:** During the past two years about fifty-five new pasteurization plants have been constructed in some twenty towns in Arkansas. At the present time there is only a small section of the state that does not have pasteurized milk available.

The pasteurized milk sales in our cities have increased as much as 45 percent. This increase in the use of pasteurized milk has been due to consumer demand for the extra protection rather than legislation. The sanitary ratings of most of our municipalities in Arkansas in the past year reveal that there has been considerable improvement in the production, processing, and handling of milk. We still have a long way to go before we reach the desired result, but these improvements are very encouraging.

**Dairy Products:** At the present time several new cheese plants, ice cream factories, and creameries are being either remodeled or constructed. A rigid program of grading, sediment testing, and laboratory analyses of dairy products has been inaugurated with a decided improvement in the quality of dairy products reaching our markets. The consumer is becoming more and more critical on the quality of his food. Sooner or later must come the realization that all dairy products must be sold on an actual quality basis.

**Malaria Control:** The largest malaria control program ever was operated in 1946. DDT house spraying on a basis of local participation in sharing the cost is planned for 1947. A campaign was started in July, with a goal

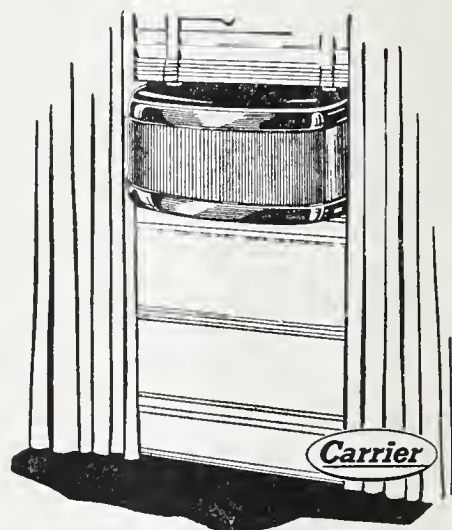


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of \$420,000, based on a charge of \$3 per house. By March 1, \$165,000 had been collected towards this goal.

Larvicidal work was conducted in 1946 around 28 towns, and residual spray work was done in 86 towns and in rural areas of 33 counties. During the year, 221,000 spray applications were made on 144,000 houses. The 1947 house-spraying program will be carried on in 37 counties. Twelve cities have asked for larviciding work this year.

Operational control was supplemented by educational work in malaria consisting of in-service training, lay adult, school child, and teacher education. This was accomplished, in part, through: 7,000 column inches of newspaper publicity; 467,000 pieces of malaria control literature distributed; contact with 69,000 people attending meetings in which malaria control was featured; ten malaria workshops conducted in connection with teacher training at colleges of the state; the showing of 2,700 movies and film strips; and in contacts made through the schools. Spray crews were trained in more complete details of malaria control than those necessitated by their specific job, so that they served an education purpose while doing the spraying.

Ten thousand blood smears were taken from the school children of the delta section of Eastern Arkansas to determine rise or fall of the disease. The examination of these slides has not been completed.

In 1946, 1,096 cases of malaria were reported as compared with 1,649 cases for 1945. Mortality records for 1946 showed 22 deaths as compared with 43 deaths in 1945, and 89 deaths in 1944, a decrease of 75 percent from 1944 and 50 percent from 1945.

**Typhus Control:** Typhus control programs were activated during 1946 in Little Rock and North Little Rock following a typhus survey made in 33 cities in the state. Reports from the survey showed 26.5 percent of the rats trapped in Little Rock were infected as were 23.6 percent of those trapped in North Little Rock. Only three other cities had more than 10 percent positive results: Pine Bluff, 23.2 percent; Dumas, 13.6 percent, and El Dorado, 10.8 percent.

The typhus control programs, as carried on in Greater Little Rock, consisted in clean-up drives, rat-proofing buildings, DDT dusting to kill the fleas that live on the rats and carry typhus, and poisoning and trapping to kill the rats. Since the program started and to December, 1946, 509 Little Rock establishments have been rat-proofed.

#### DIVISION OF INDUSTRIAL HYGIENE

The Division of Industrial Hygiene expanded its program and with additional personnel continued the program of surveys, visits, and consultations in regard to improving environmental conditions in plants as to medical, first aid, and engineering aspects. Recommendations were made to management to prevent occupational diseases, insanitary conditions, and other phases of public health in industry.

The usual occupational diseases were found, with industrial dermatitis leading as to number, but silicosis is the most serious industrial disease found. The cooperative work with the Tuberculosis Control Division whereby chest X-ray clinics were held in industry was continued. No program of mass blood testing in industry was carried out with the Division of Venereal Disease Control, but there was an increase in the number of industries using blood serology tests as a prerequisite for employment.

One of the outstanding pieces of work done during the last year was in connection with the construction of a bridge across the Mississippi River at Memphis. The State Board of Health drew up "Rules and Regula-

tions Relating to Work in Compressed Air," and by enforcement of these rules and regulations the incidence of compressed air illness among the caisson workers on this bridge was kept below the statistical average which past experience indicated it would have been.

#### LOCAL HEALTH SERVICE

Local health units in the state have been organized for the purpose of rendering the essential primary services of public health to the people. These services are as follows: communicable disease control; environmental sanitation; public health laboratory service; hygiene in maternity, infancy, and childhood; health education; and vital statistics. To render the above-named services, it is necessary that full-time modern health departments be established on a county, district, or regional basis. Eleven state societies have passed resolutions favoring adoption as soon as practicable of full-time modern health services. These states are Connecticut, Maryland, Missouri, Nevada, New York, Vermont, West Virginia, and Wisconsin. Michigan's Executive Commission has approved the resolution. The Alabama and Colorado societies deemed no action necessary, since Alabama has had state-wide coverage for some time, and Colorado has been on record as approving such coverage for a number of years.

It is the recommendation that the following be approved:

RESOLVED, That the Arkansas Medical Society approve the complete coverage of the State's area and population by local, county, or district, full-time modern health services.

The responsibility of providing health service to the people lies in the basic unit of government, the county. Local units of government receive financial assistance from the state in conducting their health program. Due to a provision of the state constitution, the county is able to assess only 5 mills for the purposes of general revenue. The tax income therefrom must support all the constitutional offices, as well as the contractual agencies, of which the health department is one. There is not sufficient money available to support an adequate health program in the various counties after the constitutional offices have been provided for. In a number of counties even these offices are not adequately provided for. There is a great need for a provision whereby local units of government might assess a millage for public health purposes on an optional basis, therefore it is the recommendation that the following be approved:

RESOLVED, That the State Constitution be amended (changed either by legislative amendment or referendum) to permit counties to assess a millage for public health purposes, such assessment to be optional with the counties and voted upon by the qualified voters.

#### COMMITTEE ON MEDICAL ECONOMICS

H. E. Mobley, Chairman

(Read by the secretary.)

1. Insurance Plan—At a recent called meeting of the House of Delegates, the report of the Committee on Medical Insurance was adopted and a committee appointed to place it in force.

After studying the plan presented for insurance, it is the opinion of the committee that there are a number of objectionable features.

The question that we are all trying to answer is to provide a way to make available to that group of people who are wholly or partially unable to supply that service financially.

The plan as presented does not answer that question but does provide a partial coverage plan of insurance



at a cheaper rate for those who are able to buy insurance or pay for medical service.

It does not provide home treatment. To receive benefits from this plan, it is necessary to enter a hospital, except for certain examinations as set out. As a result, there will be a shortage of hospital beds beyond the present shortage. Arkansas is definitely a rural state. The rural people will benefit very little by this plan.

It creates a monopoly in that the committee is authorized to enter into a contract with one insurance company at the exclusion of all others, denying the Arkansas Medical Society and the policyholders the competitive basis of business.

It has been estimated that 24 percent of the people are partially or wholly financially unable to pay for medical protection under any type of plan. This group is not reached by this plan, as no fund is provided to reach them.

It is the opinion of the committee that a plan to provide this fund has been side-stepped by the Arkansas Medical Society as well as many other societies who are attempting to place in force such a plan. It is the opinion of the committee, also, that this fund will determine the success or failure of this or any other plan and that the only source of revenue to provide a premium to pay a part or the whole of the premium for this group of 24 percent will have to be provided by the state or federal government through taxation.

The committee is desirous of cautioning the society to protect the independence of the medical profession in any plan they undertake.

We want to commend your committee on its study of an insurance plan and assure them our support. We realize that they have done quite a lot of investigating and have accumulated quite a bit of information. We feel, however, that further study is necessary.

We wish to recommend that the House of Delegates amend the committee report as adopted by the called meeting and appoint a committee to continue the study of medical insurance along the following lines:

1. Recommend that the supply of medical service to the indigent is a function of the state and federal government.
2. An agency be created with a cabinet post to administer the program. That this cabinet member is to be a physician.
3. That funds to pay the insurance premium be supplied through the Social Security or Welfare Agency to pay the whole or a part of the premium of those who prove that they are entitled to receive it.
4. That private insurance companies furnish these policies on a competitive basis.
5. That the family shall have the right to select their physician. That the physician shall have the right to choose his patients.
6. That a fair fee basis be established under these policies, and that these fees shall not affect the customary fees of the medical profession.

We recommend that such committee as appointed shall have authority to present their plans to the Council of AMA with the endorsement of the Arkansas Medical Society.

2. The committee feels that the most important economic development of the medical profession in the state of Arkansas depends upon medical education. We wish to commend to you the efforts of Dean Chenault and his co-workers for their plan of developing the Arkansas Medical School. We also wish to commend President-elect Jones of the University of Arkansas for his attitude toward the Medical School.

We also wish to commend and express our appreciation to Governor Laney and the Arkansas Legislature for providing the funds to make it possible for the Medical Department of the University of Arkansas to provide the necessary facilities to carry on their work in an acceptable manner.

Feeling that the economic education of a medical student is very important, we wish to recommend that such a course, if not already available, be provided at the Medical Department of the University of Arkansas.

3. We recommend that the requirements of the Veterans' Bureau, which provides for the treatment of service-connected disabilities of veterans by local physicians, be simplified to a workable degree. Those of you who have had experience know that the present plan will fail if it is not simplified. The remuneration will not provide for the loss of time and clerk hire in handling these cases.

M. L. Norwood stated that he did not sign the report of the committee and that he does not concur in it.

#### COMMITTEE ON SCIENTIFIC EXHIBITS

H. A. Causey, Chairman

Herein is respectfully submitted a report of the Committee on Scientific Exhibits for the 1947 meeting of the Arkansas Medical Society in Little Rock. Efforts were made to contact the larger scientific bodies as the State Tuberculosis Sanatorium, the Arkansas State Health Department, and others by letter asking that they participate in these exhibits. It was thought the best way to contact the private physicians over the state was by means of the state Journal which reaches every physician. The response to these efforts can be seen in the number of exhibits present at this meeting. There were very few who wrote asking for space to place their exhibits. There was a noticeable lack of interest in this particular feature of the medical meeting. One former exhibitor voiced his opinion that too few doctors visited his exhibits.

It is believed that interest should be stimulated in the individual to participate in the scientific exhibits. Every doctor sees things of interest from a scientific standpoint frequently which would be of benefit to others when shown. Scientific exhibits have always been a part of the medical meetings, adding much to the meeting as a whole. It is suggested that a more or less permanent committee be set up, as the smoothness of an organization's functioning lies in the experience of having done the job many times before.

#### THE COMMITTEE ON CANCER CONTROL

Fred Hames, Chairman

The year just ending has been a very busy one for the members of this committee. We have had numerous meetings and I feel that we have accomplished much more than we have in any previous year.

During the year the Committee on Cancer Control was appointed as an advisory committee to the Cancer Commission as a requirement of the Public Health Department in order that the Cancer Commission might receive additional funds from the Public Health Department. As a result of this, \$25,000 was placed at the disposal of the Cancer Commission to be used by the commission in accordance with the rules set up by the Public Health Department.

During the year, twenty-two diagnostic clinics have been conducted in twenty-two counties, and during the remainder of this month and the month of May five additional clinics will be held.

Beginning this year, and continuing from year to year,



there will be an annual oration on cancer under the auspices of this committee. Dr. W. M. Firror, assistant professor of Surgery at Johns Hopkins, will be the speaker.

Your committee is sponsoring a total of twelve educational meetings to physicians, and members of this committee have secured four outstanding men in the cancer field to conduct these programs. Funds for the expenses of these additional programs have been supplied through the State Cancer Commission.

Your committee has worked in full cooperation with the Field Army, headed by Mrs. Brooksher, in the promotion and in the conducting of numerous cancer clinics. The state commander of the Field Army has given unselfishly of her time throughout the year. Too few of us realize how much time and effort she has expended over a long period, and great praise is due her.

This committee acted in an advisory capacity in the selection and employment of a full-time educational director for the Field Army. This gentleman will travel the entire state and assist in the procuring of local commanders for the Field Army and also in the planning of diagnostic clinics. Your chairman, as a member delegate of the American Cancer Society, has attended meetings in Oklahoma City, Chicago, and Edgewater Beach, Mississippi, in connection with the activities of the Field Army.

I wish at this time to express my sincere thanks to all of the members of this committee for their cooperation and help in the many problems that have come before us this year.

The Committee on Cancer Control feels that indigent cancer cases should be treated locally in so far as possible where adequate surgical and irradiation facilities are available with the Arkansas State Cancer Commission providing funds for hospitalization.

### THE COMMITTEE ON THE HEART

Charles T. Chamberlain, Chairman

During the interval from April, 1946, to April, 1947, the Heart Committee has continued its policy of publishing in the Journal at monthly intervals summaries of problems in cardiology, both diagnostic and therapeutic, which in the opinion of the committee were felt to be interesting and instructive to the profession throughout the state.

In January, 1947, following the issuance of the report of the Committee on Medical Service and Public Relations to the Council of the Arkansas Medical Society, dated December 1, 1946, the Heart Committee, after due conference and deliberation, had occasion to communicate with the chairman of the Medical Service Committee, calling his attention to the fact that in the written summary of fees, schedules and services no distinction was made between the recording of the electrocardiogram and the interpretation thereof. The Heart Committee's recommendation was that the interpretations of the electrocardiograms should be carried out on a fee basis.

Your chairman wishes to take this opportunity to express his appreciation to the members of his committee and to the editor of the Journal for their cooperation in this year's work.

### COMMITTEE ON MIDWIFERY

J. P. Price, Jr., Chairman

Last year's report as made to the state society was discussed by the State Board of Health and the sentiment of the board was sympathetic with our recommenda-

tions. The program could not be adopted, however, because of inadequate staff.

The State Board of Health has ventured forth with a midwife program with its limited facilities and the results are very interesting.

The Division of Maternal and Child Health of the State Board of Health, headed by Frances Rothert, M.D., has been kind enough to give us the attached report on the work of the Negro Nurse on Midwifery.

### WORK OF NEGRO NURSE-MIDWIFE

Arkansas State Board of Health

The State Board of Health has had a negro nurse-midwife on the staff since July 1, 1945. She has been assigned to the following counties to work with the local midwives: Pulaski, Miller, Hempstead, Lafayette, Nevada, Columbia, Conway, Faulkner, Lonoke and the city of Little Rock.

She goes to the county with a list of all midwives reporting births from that area.

Her plan of work covers two objectives: one is to educate the community to demand better care from the midwife and the other is to improve the service the midwife is capable of giving.

This calls for a weeding out of the most unfit midwives, thereby reducing the number in the state. The others are visited in their homes and are organized into formal classes that are held at regular intervals. At these classes the midwives are taught the few simple procedures that they should know in order to assist at a delivery. Matters taken up in these instructions include cleanliness, recognition of abnormalities and necessity for calling for assistance early, how to use nitrate of silver in the baby's eyes, and how to report births properly. Much emphasis is put on what should not be done, such as vaginal examinations, use of rubber gloves, and the giving of drugs of any kind. Rubber gloves are banned because midwives cannot learn to keep them clean. Bloody gloves are often found in their bags. Drugs taken from their bags include quinine, ergot, and many proprietary preparations.

Education of the counties using midwives is done by group meetings and home visits. The nurse-midwife visits maternity cases in their homes to demonstrate to the midwife the care that she should give her patients. At group meetings the community is taught how to select a midwife and what to expect of her.

When medical care is not available to colored maternity patients on a private basis a medical clinic is organized in the local health department if a physician can be employed to hold it. When this has not been possible because of lack of physicians, then nursing conferences are organized. The nurse can screen the midwife cases by checking weight, urine, and blood pressure. Abnormalities are put under medical care.

The midwives who can follow instructions best and who have completed the course of instruction and met other requirements are issued a permit to practice midwifery. Some are refused a permit altogether and others are retired from active practice.

In the ten counties of the special project there had been 497 midwives reporting births in recent years. The number of classes taught was 105, or an average of ten in a county, with a total attendance of 961; 389 field visits were made to midwives and 328 to maternity cases, eight deliveries were supervised. Four medical maternity clinics and three nursing conferences were organized and have flourished. At the close of the classes 133 of the 497 midwives were given permits, 59 had permits refused, and 26 were given retirement certificates. The remainder dropped out and have almost all stopped practice. Physicians and public health nurses



are reporting marked improvement in the care of midwives' patients, and a very great increase in the number referred for medical care.

### COMMITTEE OF THE MATERNAL AND CHILD WELFARE

I. F. Jones, Chairman

During the past year five Arkansas men have been given scholarships for refresher courses, three in obstetrics and two in pediatrics. We feel this is very worthwhile and should be enlarged. We also feel it would be quite beneficial if the refresher courses in obstetrics and pediatrics were given in conjunction with the Arkansas University School of Medicine.

The maternal and infant mortality figures for 1946 are not yet available but I would like to give you some comparative statistical figures for Arkansas. The maternal mortality rate of live births was 5.4 in 1939. The infant mortality rate for live births for 1939 was 45.6 percent. The rates in 1945 show a reduction of the maternal mortality rate to 2.8 percent and the infant mortality rate to 30.5 percent. From the above you can see that the maternal mortality rate in Arkansas has been reduced practically one-half in the past 6-7 years, whereas the infant mortality rate has been reduced one-third.

Preliminary figures are available on the first 10,508 closed maternity cases under the EMIC plan. This shows 10 maternal deaths or 1.1 per 1,000 live births. These deliveries occurred during 1943, 1944 and the early part of 1945. All but 769 were white; all the deaths were white.

In the January 26th session, the house of delegates expressed its disapproval of the continuance of the EMIC program and the Arkansas State Board of Health was notified of this decision. The State Board of Health will doubtless act on this at its next meeting. The national program will probably close in the near future as the federal bureau of the budget has recommended to Congress that it be discontinued as of June 30, 1947.

Considerable work has been done in the prenatal clinics throughout the state. A great deal of the improvement in mortality statistics are due to the good work being done by these prenatal clinics. The State Board of Health reports that its incubators and premature equipment have had more use during 1946 than 1945 and more in 1945 than in 1944, and we feel sure the increased usage of this equipment has helped and will continue to help decrease the mortality rate, especially among the premature.

We would like to call your attention to the new prenatal law passed by the last legislature. This law requires the taking of a standard blood test for syphilis as a routine part of the doctor's examination of pregnant women. While the law does not require treatment, it is believed that the doctor will urge treatment, and the mother will want it, once the presence of the disease is shown.

We would also like to call your attention to the change in the birth certificate. The last legislature passed a law providing that birth certificates should not contain any statement as to the marital status of the mother. Also you will find on the certificate blank space for the date the serological test was made on the mother.

We believe that all of these are broad steps in reducing the maternal mortality or pregnancy.

### COMMITTEE ON THE AUXILIARY

L. K. Hundley, Chairman

It is my privilege to report the activities of your Committee on the Auxiliary. It has been my pleasure to work with Mrs. Fred Hames, president of the Auxiliary,

in planning their program for the year's work. We were consulted on all matters of general policy and approved major correspondence. Matters of major importance were referred to the committee as a whole. I feel that a brief resume of the work of the Auxiliary during the past year would be of interest to you. In the past, too little publicity has been given to the work our wives have done. I am afraid that we take them too much for granted and do not appreciate the real work that goes into such a program as they have carried out.

During the year they have had ten major projects:

1. The Ilse F. Oates Student Loan Fund: This fund was established to aid outstanding medical students in need of financial assistance. \$316.50 was donated during the year to make a balance of \$2,843.29. There is one outstanding loan of \$1,000.00. During the war years, of course, there were few calls for help but the money has accumulated against the day when it will be needed.

2. Cancer: This committee has sponsored the American Cancer Society organization in the state. An educational director has recently been employed by the Arkansas Division, American Cancer Society.

3. The Biographical Committee, headed by Mrs. C. W. Dixon, has prepared biographies of many of our pioneer doctors. These will appear in The Journal of the Arkansas Medical Society.

4. Hygeia: The magazine has provided for many schools and libraries. The committee urges the doctors of the state to see that this publication is on their reception room tables.

5. Constitution and By-Laws have been revised in accordance with those of the national body.

6. Physical Examinations: Fifty percent of the members of the Auxiliary have had a complete physical examination.

7. Legislation: An invitation has been received for the Auxiliary to affiliate with the Arkansas Legislative Council.

8. Public relations meetings have been sponsored by the Auxiliary to acquaint the public with pending medical legislation with speakers approved by the committee.

9. The Auxiliary contributed to the Jane Todd Crawford Memorial Fund, which establishes a scholarship in gynecology.

10. Earle Chambers Memorial Fund for the purchase of books for the State Tuberculosis Sanatoria has done much to help our tubercular patients.

For the coming year the president-elect has requested that the local societies urge and assist in the formation of more auxiliaries. At present there are 22 units in the state with a membership of 507. This year a new auxiliary has been established in Benton county. Our Auxiliary needs encouragement to continue its expansion in numbers and in good works. The matter of membership in the Arkansas Legislative Council is referred to the House of Delegates for opinion.

### COMMITTEE ON CONTROL OF SYPHILIS

L. G. Martin, Hot Springs

The Venereal Disease Control Program of the Arkansas State Board of Health during the year 1946 was continued along previously established lines and policies. Emphasis was again placed on early case finding and the institution of adequate treatment early in the course of the various venereal diseases.

Due to a lack of essential personnel in local health departments, the Venereal Disease Control Program as a whole experienced some degree of regression during the year. Local health department venereal disease diagnostic and treatment clinics were necessarily reduced



from a high of eighty-four clinics during the war years to an average of fifty-four at the present time. The diagnostic and treatment clinics are supervised and directed by local practicing physicians in the various communities of the state and are assisted by the local health department personnel. Because of the necessary reduction in local health department VD clinics, it was both necessary and practical to refer or transfer a greater number of suspects, contacts and diagnosed cases of venereal disease to the Medical Center which is located in Hot Springs, Arkansas. The Medical Center is operated jointly by the Arkansas State Board of Health and the United States Public Health Service. During the year a monthly average of over 700 suspects, contacts and diagnosed cases of venereal disease were referred or transferred to the Medical Center by private practicing physicians and local health departments throughout the state. The private physician may refer cases of venereal disease to the Medical Center for treatment or diagnosis through either the local health department services or directly by personal letter which should accompany the patient and which will serve as authority for admission.

With the advent of penicillin into the physician's armamentarium, the treatment of gonorrhea has been revolutionized. It is also quite possible that this antibiotic either alone or in combination with other drugs will revolutionize the treatment of syphilis.

Penicillin therapy is rapidly displacing the older approved types of treatment in the management of early syphilis. With the traditional types of treatment, unpleasant to the patient and burdensome to the physician, the patient lapses and fails to take treatment soon after the disappearance of symptoms. Returning the patient to treatment is difficult, and those who do not return serve as feeders of infection to their families and the community and are themselves subject to the late ravages of the disease.

Over 50,000 syphilitic patients have now been treated with either penicillin alone or in combination with arsenicals and heavy metals. These patients have been treated under close supervision in Medical Centers, Rapid Treatment Centers and Local Health Department Clinics throughout the country. An accurate post treatment follow-up on these cases has been instituted. The results to date are excellent. However, more follow-up is required over a longer period of time before we can cast aside the traditional accepted schemes of treatment and accept completely the new.

The Arkansas State Board of Health now furnishes local health departments with penicillin calcium in peanut oil and beeswax for the treatment of medically indigent cases of gonorrhea. One cc (300,000 units) of the preparation given intramuscularly is recommended. To date, in some instances, it has been necessary to re-treat an occasional case. However, we have been unable to find one case of gonorrhea which was definitely resistant to penicillin therapy. In all cases of possible treatment failure we have found some other condition or infection responsible for continued symptoms or that the case was a re-infection. In the treatment of syphilis in local health department clinics the standard approved schemes of treatment are being followed and the Arkansas State Board of Health furnishes Mapharsen, Bismarsen, Sulpharsenamine, Neoarsphenamine and Bismuth to local health departments as well as to private practicing physicians.

During the year 1946, 84,874 blood specimens for syphilis, 9,902 smears for gonorrhea and 9,238 cultures from private physicians and local health department clinics were processed by State Hygienic Laboratory.

During the year 1946, the following cases of venereal diseases were reported and placed under treatment for the first time by private physicians and local health department clinics:

Reported V. D., Arkansas, 1946

Source of Report	Syphilis				Gonor-rhea	Chan-croid	Gran. Ing.	Lym-pho-Gran.
	Pri. & Sec.	Early Latent	Late & L. L.	Cong.				
Private Physicians	495	214	172	11	1,277	8	9	15
Local Health Departments	1,917	3,303	2,648	460	5,440	167	39	124
Total	2,412	3,517	2,820	471	6,717	175	48	139

Many of the cases of venereal disease reported by local health departments were referred or transferred to a private physician or the family physician for treatment after the diagnosis had been made.

It is quite obvious from the above table that many private physicians in the state are not reporting venereal diseases to either the local health department or to the Arkansas State Board of Health as the law requires.

During the year, 4,247 contacts to early syphilis were reported to local health departments, 51.3 percent or 2,181 of these were located, of which 1,068 were found to be infected or 48.9 percent. During the year, 833 contacts to early latent and late latent syphilis were reported to local health departments; 63.0 percent or 525 of these were found and 258 or 49.1 percent were infected.

Since the termination of hostilities the venereal disease rate of the nation has increased; the venereal disease rate of Arkansas has also increased. The Venereal Disease

Control Program of the state should be further expanded and intensified with reference to early case finding and the administration of adequate treatment early.

A state pre-marriage law to detect and prevent syphilis prior to marriage is essential in the control of syphilis. The State Medical Society should go on record as strongly approving such a law. Arkansas is now one of only eleven states left that does not have this basic law in effect.

LIAISON COMMITTEE TO THE ARKANSAS  
TUBERCULOSIS ASSOCIATION  
A. C. Shipp, Chairman

The Liaison Committee of the Arkansas Medical Society and the Arkansas Tuberculosis Association held a joint meeting shortly after the last annual meeting of our state medical society. The entire membership of the committee with the exception of Dr. J. D. Riley, State Sanatorium, was present.

At the request of the committee, Dr. A. C. Curtis,



director of the Division of Tuberculosis Control, State Health Department, was present and outlined in detail the plan under which the Division of Tuberculosis Control planned to operate. There was a full and free discussion of the recommended procedure, and it was the unanimous vote of the committee that the procedure be approved.

It was felt that an educational program should be carried on to acquaint the people of the various counties with the fact that the State Board of Health had the necessary equipment with which to conduct mass X-ray service in every county in the state after the county medical society had extended an invitation to the department. Because of a delay in the delivery of equipment, this program has not moved as rapidly as we had hoped. However, in each county where the units have been used, an increased interest in the program has been noted, and the attendance at these clinics has been most encouraging.

The Joint Committee was very active in support of legislation which would require X-ray examination of all school personnel, including bus drivers, janitors, cafeteria workers, teachers, and principals. This bill passed both branches of the General Assembly without a dissenting vote and becomes effective as of July 1.

Members of the committee also gave assistance in helping to secure additional building funds at the Negro Tuberculosis Sanatorium. Several legislative committee meetings were held, and funds were appropriated with which to complete the present building program. This will give a total of four hundred beds at the institution.

Much time and effort were given to the needs of our State Hospital for Nervous Diseases. The Arkansas Tuberculosis Association concentrated its efforts in securing a much-needed 300-bed unit for the tuberculous insane. This bill passed both branches of the legislature, and the bill was signed by the governor.

Your committee recommends that further study of legislation or strengthening of the State Board of Health regulations with reference to compulsory hospitalization of the recalcitrant tuberculous patient should be made. In the case of the negro patient, this compulsory hospitalization will not be possible until more beds can be provided at the negro sanatorium. The present waiting list of approximately six hundred is much larger than the total bed capacity.

Inasmuch as we now have the scientific knowledge with which to combat tuberculosis and bring the disease under control within a comparatively short time, we believe that as physicians and lay workers we should use every effort to educate the people of our state and counties to the fact that tuberculosis is a disease comparatively easy to cure if found in time and that the best known method of finding tuberculosis is by use of the tuberculin test and the X-ray. It is entirely possible to bring human tuberculosis under control if we could apply the same compulsory case-finding methods which were used a number of years ago in the control of bovine tuberculosis.

#### COMMITTEE ON INDUSTRIAL HEALTH

A. D. Cathey, Chairman

Our report this year is not intended to be of a comprehensive nature. There has been the usual activity by our State Health Department in the surveys of industrial health conditions and hazards including the micro-filming of the chest of many industrial workers.

The principal material of this report pertains to the business relations and problems affecting the doctor do-

ing industrial work and the insurance companies insuring the industrial employee.

Your committee, on invitation, met with the Arkansas Adjusters' Association on May 3, 1946.

A round table discussion was held and a number of problems of the adjusters were freely discussed. This discussion revealed that there were a number of outstanding problems which through closer cooperation between the physician and the adjuster would be of great advantage.

Among the problems or subjects discussed were:

1. Reports.
2. Designation of physicians.
3. Fees.

#### Reports:

Reports should be made promptly, and if the case is not to be terminated and a final report and bill rendered within two weeks, then a supplemental report should be made so that the insuring company and the Workmen's Compensation Commission will know that the injured man is entitled to his bi-weekly compensation check. This is especially true if the very nature of the injury does not indicate the need for a long period of treatment. We were informed that the Compensation Commission requires that these checks be sent out unless it was known that the injured man was not entitled to it, and in some cases unnecessary payments had been made which could not be recovered. Your committee appeals to you to make an earnest effort to make these reports.

#### Designation of physicians:

It is the practice and privilege of the insuring companies in Arkansas as well as in most of the other states to designate the doctors who should treat the injured workmen on whom they carry the insurance.

The adjusters feel a distinct satisfaction in their privilege of selecting their physicians and feel that it is not only a distinct financial saving to themselves but to the best interests of the patient.

Your committee feels no dissatisfaction with the insurance companies in designating their physicians, but we do feel that they should make as large a selection of capable physicians as possible so as to give the injured employee his choice of a number of physicians. In actual practice we feel that it is usually the employer or his foreman or first aid men who actually arrange for the treatment.

If we are dissatisfied with this system it then seems that additional laws would have to be enacted providing a method for the preparing a roster of physicians who should treat the industrial cases and also a requirement that employers exhibit in suitable conspicuous places at their sites of operation a list of physicians from which the workmen are privileged to select his physician. Your committee has no recommendation at present.

#### Fees for treatment of industrial cases:

This is something in which the adjusters and insurance companies are especially interested. They tell us that there is a marked discrepancy in the charges made by different doctors for the same type of service and are quite desirous of a schedule of fees.

Your committee feels that in fairness to the insurance companies the charges made for treatment of industrial cases should be fairly uniform and on a moderate fee basis, but we have not yet felt it our duty to prepare a definite and specific fee schedule to follow.

However, there has been prepared and adopted two fee schedules in Arkansas in the last year. One to be followed as closely as possible in the treatment of cases for the Vocational Rehabilitation organization and the other in the treatment of cases for the Veterans' Admin-



istration. We believe these two schedules to be quite similar or nearly identical. It has been impressed upon us that the fees for these services are paid out of public funds. We thoroughly realize and accept this fact and consequently have accepted a schedule based on the very minimum fee for these two organizations. Therefore, if you use either of these schedules to guide you we feel that a charge of from 25 to 35 percent in excess of the above-mentioned schedules should be made. We believe this differential is equitable and justifiable because we are expected to charge the usual average fee. Again, the industrial case in contrast is frequently an emergency with the expected number coming on Sundays, holidays, at night, during the rush hours of the day and even at mealtime.

We deplore and wish to condemn the action of any doctor who makes unnecessary visits or charges or who makes charges much in excess of that customarily charged by the average doctor with the necessary skill and competence.

If there is no objection, it is our intention to supply the Arkansas Adjusters' Association with a copy of this report, and if they desire it, a copy of one of our fee schedules.

## REPORT OF COMMITTEE ON MENTAL HYGIENE

A. C. Kolb, Chairman

In the past, the report of the Committee on Mental Hygiene has been largely a report on the activities of the State Hospital. Since the last report of this committee at the annual meeting of this Society a year ago, several things of interest to our organization have taken place. Because of this, a more extensive report than usual is necessary.

From the historical standpoint, it is, perhaps, proper to detail some of the more important of these occurrences and their effect on the mental hygiene program in this state, including the care and treatment of the hospitalized mentally ill.

Due to dissension among the members of the Board of Control of the State Hospital, the superintendent resigned, effective August 31, 1946. This was followed by the resignation of the chairman of the Board of Control with a challenge to the other four members to do likewise in order that the Governor might appoint a new Board of Control and thus eliminate the dissension which had prevailed more or less since the board was first appointed early in 1941. The remaining members refused to resign and the situation remained status quo until the legislature met in January of this year. An investigating committee from that body was appointed to make a thorough and complete investigation into the causes of the dissension. After thirty days or more of taking testimony and visiting the separate units of the institution, the committee finished its work. The result of this investigation was refusal of the Senate to confirm the appointment of one of the Board of Control members under criticism. The other member under criticism was confirmed but resigned at the first meeting of the Board of Control following his confirmation. The Governor then appointed a physician to membership on the board to succeed the resigned member. The Board of Control had been without a physician member since February 15, 1946, due to the resignation of the physician member. It is highly important that a physician should always be on the governing body of the State Hospital. It would be preferable that two physicians were on the Board of Control. The reason for this statement is obvious.

The chairman of the new Board of Control has issued

a public statement in the press to the effect that politics in the State Hospital is out. If this policy is carried out as stated, then a new day has dawned in Arkansas.

The State Hospital situation and the accompanying publicity in the newspapers of the state have done more to arouse public interest in the subject of mental diseases, including mental hygiene for the prevention of mental illness and also better care and treatment of the institutionalized cases, than anything else in the past. The average person on the street has begun to talk about it. This is encouraging.

Because of this aroused interest, the legislature, at the recent session, appropriated \$2,000,000 for repairs and new construction over the next two years. Also, it appropriated \$2,250,000 each year for the next two years for the operation of the institution. There are, at this writing, approximately 4,800 patients in the State Hospital. The amount appropriated each year for the operating expenses of the hospital amounts to only \$1.28 per day per patient. It takes no stretch of the imagination for anyone to realize that this figure, while an increase of 52 cents per day per patient over that of the present figure of 86 cents per day per patient, is still a miserable pittance for the care and treatment of these unfortunate patients as compared to that of other hospitals of Arkansas including Federal hospitals of like nature. The matter simply resolves itself into the fact that those in authority consider a total figure rather than the per day per patient basis of care and treatment. This has been the principal obstruction in securing more adequate appropriations in the past.

Another progressive step made by the recent legislature was the passage of an act providing for the establishing of a Bureau of Mental Hygiene in the State Health Department. This paves the way for the reception of Federal funds for this work when the Congress appropriates the money. Our legislature made no appropriation to match Federal funds when available for this work. We are hopeful that this will be done at the 1949 session.

One of the principal factors responsible for the deplorable manner in which the unfortunate mentally sick of this state have had to be cared for in the past has been the indifference of the Arkansas State Medical Society toward this problem when it came time for the legislature to make the appropriations to carry on the work of the State Hospital. The membership of our State Society, with a few exceptions, either individually or as an organization, has remained strangely silent and indifferent toward a better program of care and treatment of hospitalized mental patients. Also, the establishment of a mental hygiene program in our State Health Department. We believe this to be due to the lack of interest in mental diseases on the part of the average physician. This attitude has existed in spite of the fact that the majority of all human illness is mental and nervous in character. There are at this time approximately 300 more patients in the State Hospital than there are total hospital beds in Arkansas for all other types of diseases. Federal hospital beds excluded from this figure.

It has been only a few years ago since typhoid fever, smallpox, diphtheria and other infectious and contagious diseases were on the march. The Arkansas State Medical Society aroused the public interest in the matter of prevention of these diseases and, as a result, the legislature appropriated funds to enable the State Health Department to set up a program of education and to institute measures of prevention and, as a result, these diseases have been practically eliminated. A good job was done and the money spent in this work yielded large dividends.



Money spent on a program of mental hygiene will do likewise.

The Arkansas State Medical Society must accept its responsibility in regard to this problem. The care and treatment of the mentally ill in the State Hospital, as well as any mental hygiene program for the prevention of mental sickness, will never be any better than the interest taken by our organization in this important phase of medicine. The politicians have been at the steering wheel too long in this matter. This is a medical problem and not a Chamber of Commerce project. The State Hospital is an institution for the care and treatment of sick people and not a place for the distribution of jobs to the broken-down faithfuls at the change of each administration. A majority of the employees of this institution, at any time, would be classified as unemployables by any ordinary standard of efficiency used by business institutions in general. Think of it! Employed to nurse and care for sick people. Are we, the physicians of Arkansas, willing to remain indifferent and complacent to this situation? We are the ones who have the responsibility of advising the families of our unfortunate mentally ill patients that it is necessary to send their loved-ones to the State Hospital. Must we, by our lack of interest, continue to have to apologize to our clientele for the conditions that exist in that institution every time it becomes necessary for us to send a patient there? What we have said about conditions in the State Hospital is, in no sense, a criticism of the superintendent and his staff. They are doing the best they can with what they have to work with in carrying on the program of care and treatment. They need our help.

The time has arrived when a separate institution for the care and training of the mentally deficient group should be established in this state. These unfortunate patients are now housed among psychotic patients in the State Hospital and receive no educational or vocational training whatsoever. This is tragic. This institution should be located near one of our State Teacher's Colleges so that the teaching facilities of these institutions could be utilized in training these unfortunates. There are places of employment in every community which could be filled by the mental defectives therein. It is the duty of the social group to see to it that the mental defectives are provided with jobs they can do. The Teacher's Colleges can make their contribution to the state by training these unfortunates accordingly.

Our state legislature will not have discharged its full duty and responsibility in the matter of mental hygiene until a competent and qualified psychiatric service has been provided for the penal and correctional institutions of this state. The inmates confined therein are, in a large measure, the end results of a neglected mental hygiene program. This service might well be furnished by the Bureau of Mental Hygiene of the State Health Department when it is established. A thorough psychiatric study should be made of every inmate of these institutions and that study made a part of his record for the benefit of the Parole Board when the question of the release of such inmate is considered by that body. There is no more reason in releasing a repeating criminal on society than there is in permitting a known typhoid carrier to roam at will the streets of Little Rock. Crime prevention is a mental hygiene problem of first magnitude.

In conclusion, this committee again urges each physician in Arkansas to take a more personal interest in his mental patients. There are more of these patients than all others, as we have already pointed out. Also, we urge the Arkansas State Medical Society, as an organization,

to become militant in demanding more consideration for these patients in the State Hospital. This Society can get what it demands, if it has the willingness to say what it wants.

It would not be proper to close this report without calling attention to the fact that the Pulaski County Medical Society recently displayed an interest in State Hospital matters that is really commendable, and we have the assurance that it proposes to keep up this interest. We pass this information on to you, our State Society, and urge that you likewise may catch the spirit.

#### COMMITTEE ON MEDICAL SERVICE AND PUBLIC RELATIONS Chas. R. Henry, Chairman

The report of the Committee on Medical Service and Public Relations has been published. At a called meeting of the House of Delegates, this body approved the report with one exception.

Following the recommendation made by this committee, Dr. King Wade appointed six (6) members of the Society to serve on a joint committee with six (6) members of the Arkansas Hospital Association. The joint committee, after much deliberation, selected four (4) additional members from the public at large representing agriculture, education, labor, industry and finance. This sixteen-member committee has been authorized to act for the Arkansas Medical Society and the Arkansas Hospital Association and continue study to implement the Prepayment Health Insurance Program.

Invitations to bid on our contracts have been extended to all ninety-six (96) insurance companies licensed to do this type of business in Arkansas. Replies were studied at a meeting of the committee April 10th. It is remarkable that most of the insurance companies did not reply or did not care to participate in this type of business and objections were made by several of the interested large insurance companies. The joint committee was impressed by these objections but questioned whether the several insurance companies had a clear grasp of the socio-economic status of this state. A meeting has been scheduled to discuss this matter with the insurance companies interested in our program.

#### REPORT OF COMMITTEE ON MILITARY AFFAIRS Joe H. Sanderlin, Chairman

The committee met on July 14, 1946, at 10 A. M. in the Silver Room at the Albert Pike Hotel. The following members were present: Dr. Frank M. Burton, Dr. Foster Jarrell, Dr. G. D. Murphy, Jr., Dr. Joe H. Sanderlin.

In compliance with the request of our President, the problem of better utilization of the medical manpower of this country was discussed and the following recommendations made:

1. There should be a more equitable distribution of medical officers. The committee is of the opinion that there should be some type of unified command or better cooperation between the chiefs of the various branches and services of the military forces of the country whereby medical officers could be assigned in accordance with the patient-load without regard as to the branch to which they were originally assigned and that such should be accomplished with the same ease and freedom from "red tape" that now exists within a Service Command.

2. Medical officers should be assigned according to their skills as far as it is possible to do so. The committee is fully cognizant of the fact that the rotation system from field to hospital means much to the officers in the field, but it also disrupts a smoothly functioning hospital staff and deprives the patients of the type of



medical care which results from a well trained and skillful staff. It is believed that the young medical officer fresh from his internship should be assigned to field duty and only when like replacements are available should be relieved and assigned to a hospital. Those who are unfortunate enough to not be relieved should be promised and given adequate post graduate work to compensate them for their long separation from hospital contact.

3. That there should be no interference with medical officers in the performance of their professional duties by non-medical personnel regardless of their rank or position.

4. Medical officers should not be assigned administrative duties except as chiefs of professional services and membership on medical boards.

5. Medical officers should not be made responsible for property of hospital—a medical administrative officer should be appointed property officer.

6. The committee is of the opinion that the regulations governing the physical qualifications for induction into the armed forces should be altered so as to permit many men with physical defects which under existing regulations bars them from the service of their country to be admitted. It is felt that many doctors who failed to meet the physical requirements in the recent war underwent greater physical strain at home than they would have in the military service.

7. Expansion of the medical and surgical auxiliary group plan which worked so efficiently in the recent war. This would prevent tying up a large number of medical officers with permanent assignments to a hospital which might be more or less inactive for various periods of time.

8. That the needless exposure of medical officer personnel to enemy action be condemned. Many medical officers perform minor duties in forward positions which could be done equally well by enlisted men or junior officers trained as assistant battalion surgeons. A sufficient course in first aid could be given in three months.

9. All medical officers should have a condensed course of military training under officers fully qualified to train them in military matters. Due consideration should be given to the physical condition of each medical officer in regard to drill and other forms of physical exercise.

10. A greater number of hospital units should be organized and trained during peacetime to be mobilized in time of war. The committee believes such units as a whole functioned more smoothly during the last war than did those organized after the war began.

11. A more equitable system of promotions in the army should be formulated. It is believed that a system similar to that now practiced by the navy would promote better morale in the army.

#### COMMITTEE ON RURAL HEALTH

Joe Winston Reid, Chairman

Your Committee on Rural Health wishes to present a few observations and recommendations made at the second annual meeting of the National Conference on Rural Health, held in Chicago on February 7th and 8th. This conference consisted of representatives of various farm organizations and the American Medical Association. These farm organizations apparently have studied and are attempting solution of the problem much more than many of us realize.

Quoting some of their leaders: Albert S. Gross, Master of the National Grange, stated, "My organization does not believe in state control of medicine; we believe there should be a better way. Nevertheless, we believe in adequate medical and hospital services, and if it cannot be

found in some other way, I am sure that the farmers will turn more and more to state control."

Edward H. Mertz, Representative of the National Farmers' Union, stated in part: "We are currently engaged in the promotion and building of the Farmers' Union Triangle Health Insurance Plan, but we will also continue to use our resources to bring about a **universal, compulsory, complete, public health insurance program** at a cost which will permit all Americans to live in health."

These are expressions of two of our largest farm organizations: One, The Farmers' Union, definitely socialistic, and the other, The National Grange, not, but willing to become so unless positive action is taken to improve the problem of rural health.

The various committees of the conference presented many recommendations. All cannot be applicable to every state, but the following are presented as being steps that we in Arkansas should consider:

#### I. Improve the Small-Town Hospital.

Educate the people in our rural trade centers (in Arkansas our county seats and towns of 2,000 to 7,000) the need of supporting the local small hospitals. With proper support these centers could easily be developed to render a much greater service and their improvement would encourage the locating in their communities more and better doctors. This does not mean advocating the building of more hospitals in communities that could not be maintained, but the development of the established units into better and more efficient institutions. Remove from the small-town citizen's mind the idea that the local hospital is a "money-making" institution. Civic pride and local organizations (P.-T. A., Boards of Trade, Civic Clubs, etc.) could render invaluable financial and moral support just as they support the county fairs, their churches, etc.

The Hill-Burton Act may help some of our most needy districts to improve or even build new plants in a few instances.

#### II. Advocate and Support in Every Way Possible the Building of Better Rural Roads.

Farm-to-market roads will make it much easier for the farmer to use the small hospital in his trade area.

#### III. Voluntary Prepayment Medical Plan.

With the improvement of our small hospitals and their being made readily accessible by better farm-to-market roads, the ability of the farmer to pay for this service after he gets there can be provided for by our wholehearted sponsorship and support of this third recommendation—"A Workable Voluntary Prepayment Medical Plan." I cannot emphasize too much the necessity of each member of our Society supporting this project. The synergistic benefits to be obtained by both the patient and the hospital is apparent.

#### IV. Public Health and Public Health Education.

Support in development and expansion of our public health units should come principally from the local practicing physicians. It is surprising today the number of physicians in Arkansas that still frown upon the practice of preventive medicine by our county health officers. Annual examinations of every school child, good water, sanitation, clinics for immunizations would greatly improve rural health.

Our public schools would render a great aid if they were required to give adequate and competent instruction in health and personal hygiene and in home and community health and sanitation. State and other health



authorities should participate influentially in the outlining of these courses and in the selection of text books.

#### V. The Improvement of Rural Nursing Care.

This is a most acute problem. Some are advocating a "Practical Nurses' Training Course" of some 10 to 20 months, license them, and establish a recognized place for them. Would this not aid materially in our nursing problem? Our Society should seriously consider the possibilities of this idea.

VI. We in Arkansas have the problem of the medical care of the negro. This should be met with positive action.

#### VII. Medical Education and Medical Training.

Development and expansion of our Medical School should be carried out to the utmost.

Possibility of the state giving financial aid to the medical student while in medical school. This debt to be cancelled, say after he has practiced three or four years in a small town. (A plan similar to this is being carried out in Mississippi.) Aid of this type to some of our Arkansas negroes to attend any class-A medical school that he may enter could in a few years place a number of well-trained negro doctors in our counties that have a large negro population.

Should we support the plan of requiring two to three years of general practice before resident training is begun? This would definitely help increase rural physicians and probably serve as the best training the young physician could receive.

Colorado University has established a residency in general practice following the usual rotating internship. This plan may be applicable in Arkansas and should encourage the graduate to settle in smaller towns.

Our larger hospitals could provide more internships which would make it more probable that the graduate would stay in the state.

VIII. Last I would especially recommend more active participation by our Society in the annual National Conference on Rural Health. Statistics that would probably surprise you could be given to prove that a vast difference in the medical, nursing and dental care of the rural population compared to that of his urban neighbor. This is a problem for our profession to work out with the rural people. Third parties must not be permitted to interpose themselves between these two groups with quack remedies. It is being considered most seriously by the farm organizations, and, if adequate medical and hospital services are not provided, the farmers will turn more and more to state control.

### COMMITTEE ON VETERANS' ADMINISTRATION MEDICAL CARE

D. H. Autry, Chairman

Last November negotiations were started to effect a contract between the Veterans' Administration and the Arkansas Medical Society to pay for medical care of veterans for service-connected disabilities. The work on this contract was performed by the state secretary with a group of physicians selected from the various specialties. The contract agreement became operative in February, 1947. The plan and fee schedule were published in the December issue of the Journal.

This committee was appointed for the primary purpose of reviewing any complaint by the Veterans' Administration that a physician had provided either inadequate examination of, or inadequate treatment for, a veteran. To date there has been no occasion for the committee to function in this manner.

The committee feels that there are several points of

general information that should be included in this report. First, only Part I of the fee schedule is now in effect under the previously mentioned contract, and this schedule covers forty-eight types of services. Part II of the fee schedule will cover about 375 additional types of services and is now under consideration for approval by the Veterans' Administration in Washington, D. C. Pending the approval of this additional fee schedule, the schedule of fees already approved for the state of Kansas is now in effect in Arkansas. The proposed schedule of fees for Arkansas will be essentially the same as that now in effect.

The committee wishes to emphasize that the contract is between the Veterans' Administration and the Arkansas Medical Society members. Therefore, only a member of the Society can participate in veteran medical care under the plan. Due to this situation, the problem has arisen regarding the approval of colored physicians to participate in the program by caring for colored veterans. The suggestion is made that colored physicians with adequate professional qualifications who are also approved by the officers of the medical society of the county in which they reside, be approved for participation in the plan. The committee requests instructions in this matter.

Much needless correspondence and delay will be saved for both the members and the Veterans' Administration if instructions as given will be followed accurately in the completion of forms, which are as simple as it seems possible to evolve in a governmental program. Also, members must secure authority for examination or treatment from the Veterans' Administration before payment for service can be made. In certain cases of an emergency nature, the Veterans' Administration will authorize payment for services already rendered, but it is mandatory that the physician request authority for payment within fifteen days from the time treatment was begun if out-patient care was performed, or within three days if hospitalization was required.

Attention is called to the fact that the veterans' medical care plan covers only service-connected disabilities, i.e., only disabilities incurred in, or aggravated by, active military duty. Thus, payment will not be authorized for the care of such conditions as influenza, pneumonia, and acute appendicitis, which obviously are not service-connected.

Under the plan only those members of the Society who have so signified their desire to participate may become active in the provision of medical care to veterans. Members who have overlooked completion of the form may obtain one from the state secretary. Members desiring to add other qualifications for examination or treatment to those already submitted should communicate with the state secretary.

### REPORT OF THE SECRETARY OF THE STATE MEDICAL BOARD OF THE ARKANSAS MEDICAL SOCIETY

L. J. Kosminsky, Secretary

I herewith submit for your approval the action of The State Medical Board of the Arkansas Medical Society since the annual meeting last year.

There were sixty-two applicants up before the board during the last year for final examination, all of whom passed the examination satisfactorily and were issued certificates to practice medicine and surgery in the state of Arkansas.

There were nineteen applicants who took the primary examination, all of whom made passing grades.

After submitting the necessary fee, fifty-four were certified to various state boards.

After having presented satisfactory evidence of grad-



uation from reputable medical schools and having complied with all the necessary requirements of the law, fifty-six applicants were issued license by reciprocity.

Duplicate licenses were issued to nine physicians in the state after each had presented satisfactory evidence that the original had been lost or destroyed.

The Texas State Board of Medical Examiners severed reciprocal relations with the Arkansas Board the latter part of 1945. This action was taken because the licentiates of the Texas board were required to get the endorsement of the Arkansas Basic Science Board before being accepted by The State Board of the Arkansas Medical Society. This endorsement, of course, is required of all applicants.

I would like to say that, as a rule, the physicians of the state have been most cooperative in regard to the annual registration fee. However, there are a few who have been very negligent in paying this fee, making it necessary, in a few cases, to send out from one to three notices. There are several who have not as yet paid the fee for 1947.

Drs. Robert J. Haley and Robert Hood will retire from the board this coming June, having served eight consecutive years and, according to law, will not be eligible for re-appointment. The speaker's present term will expire, but, according to an opinion of the Attorney General's Office, will be eligible for re-appointment due to the fact that he has not served eight consecutive years, as he filled the unexpired term of Dr. Phillips of Ashdown after his death.

## REPORT OF ARKANSAS CANCER CONTROL COMMISSION

Carl A. Rosenbaum, Secretary

This is the second time I have had the pleasure of reporting for the Arkansas Cancer Control Commission to the House of Delegates of the Arkansas Medical Society. The first report, given in 1946, comprised a comparatively short period following the establishment of the Commission by Act 277 of the 1945 General Assembly. Since the first State Cancer Commission patient was hospitalized in September, 1945, through March of this year, 348 indigent cancer patients, representing 66 of Arkansas' 75 counties, have received hospitalization or domiciliary care at an expenditure of \$19,027.63.

Because of the rapid growth of this hospitalization program for indigent cancer victims and because of the growing need for added emphasis on cancer control in our state, the State Cancer Commission established an office with full-time personnel the first of January. Opening of this office was made possible by a grant-in-aid from the general health fund of the United States Public Health Service of \$25,000 for the fiscal year. Office space was made available by the State Health Department, which also gave assistance in setting up the necessary budget and details, making the Commission eligible to benefit from federal funds.

Biennial appropriation of \$25,000 annually for the State Cancer Commission was passed unanimously in both the Senate and House of Representatives of the 1947 General Assembly in February.

I shall report on services and program of the State Cancer Commission according to these four functions: hospitalization, cancer registry, permanent approved cancer clinics, and lay and medical education.

### 1. Hospitalization.

Our records reveal that since the establishment of the Commission through March 31 this year, 125 doctors from 35 counties in Arkansas have participated in this phase of the Commission's program by certifying indi-

gent patients, showing diagnosis of cancer or suspicion of cancer, for hospitalization or domiciliary care and treatment.

Treatment for these indigent cancer patients has been given by doctors with no remuneration derived from the Commission funds, which only provide for hospitalization of the patient. In many instances members of the profession have made their X-ray and radium facilities available for these commission patients.

Early in February letters with material interpreting the Commission's hospitalization program for cancer patients, who were unable to pay, went out from the Commission's office to 74 county directors and 15 supervisors of the State Department of Public Welfare. These members of the welfare department have been cooperative in bringing to the attention of the Commission the need of many indigent cancer victims for hospitalization.

In March, 69 letters with material telling of the State Cancer Commission program went to all medical directors and public health nurses in the state. There has been a good response from these.

A questionnaire to 75 hospital superintendents in Arkansas late in March has brought 13 replies: five hospitals are participating in the Commission program; three are interested but have not yet participated; and five do not have facilities to take part.

### 2. Cancer Registry.

The establishment of a central cancer registry is of first importance on the Commission's agenda this year. Our objective will be to provide complete and accurate information of all cancer cases within the state. Our planning and conducting of a cancer control program must be based on a knowledge of the extent of the cancer problem; and this will require systematic collection of statistics and evaluation of results from year to year.

Again the doctor's cooperation will be needed to insure success, and in this instance, in the reporting of all cancer cases. The importance of this cannot be stressed too strongly, so that our desired results in statistical research may be realized through a long range program of cancer control.

All hospitals in Arkansas will be asked to cooperate with the cancer registry by making available such parts of the records of cancer patients as are necessary to tabulate and follow up cancer cases, and to establish cancer registries of their own. In order to facilitate cooperative action of hospitals with the central cancer registry, an opinion from the office of the Attorney General of Arkansas has been asked. This plan will be presented to the State Hospital Association meeting in May for endorsement and approval.

In order to organize the central cancer registry of Arkansas in the most workable and satisfactory manner, the Commission office has had correspondence with directors of cancer control and health authorities in Georgia, Connecticut, Massachusetts, California, Missouri and Kansas. Much valuable information has been received, including detailed outlines of plans and accomplishments in this field which are helpful in formulating our plans.

A consultant from the United States Public Health Service is expected soon to assist with the installation of the cancer registry. Personnel will be added as soon as available to work in liaison between the cancer registry, hospitals and the Tumor Clinic, University Hospital, where the greatest source of information for the registry will be obtained for the present.

### 3. Permanent Approved Cancer Clinics.

Arkansas has only one permanent or fixed cancer



clinic, approved by the American College of Surgeons, the Tumor Clinic, University Hospital, Little Rock, which is held every Wednesday afternoon and serves an average of 35 cancer victims weekly. The majority of these are Commission patients, many coming from over the state. It is the desire of the Commission that these patients be cared for and treated in their own communities, if possible, but if necessary facilities are not available they may be referred. The great load and overcrowded conditions at University Hospital could be greatly relieved by the establishment of more permanent cancer clinics in the state, as well as affording diagnosis and treatment to many patients who could be spared the expense and effort of making a trip to Little Rock.

Promotion of additional permanent cancer clinics will be emphasized by the Commission, and it is anticipated that at least one, and maybe two new ones, may be established and approved very soon. Here again it takes direct cooperation and leadership of the medical profession to accomplish this service in cancer control.

As you know, it is recommended by the National Advisory Cancer Council that there be one approved clinic for every 50,000 people, and with Arkansas' nearly two millions we should have 49 fixed clinics.

In connection with the program of fixed cancer clinics for treatment as well as diagnosis, it must be said that Arkansas' great need is more beds for cancer patients. Treatment facilities for cancer necessarily include hospital beds in most cases. When we compare our 180 general hospital beds per 100,000 population to other states such as Colorado with 510 beds, Delaware with 420 beds, Louisiana with 370 beds and Missouri with 320 general hospital beds per 100,000 population, it proves we are lacking in this respect. And some of these states have hospitals devoted entirely to cancer.

Educating people to be on the alert for cancer danger signals, and to report to their doctor immediately if any appear is our first line of defense in this battle with cancer. The chance of cure is then excellent. But if we have no facilities for treatment when it is needed, and I refer particularly to beds, the program is defeated before it gets well on its way.

#### 4. Education.

Lay education ranks high in the program of cancer control. People must know enough about cancer to be on guard against the disease without living in constant fear, to have periodic physical examinations and to obtain medical care promptly when suspicious signs or symptoms appear. Fear and ignorance have helped cancer climb from seventh to second place among the big killers in the last 25 years.

The Arkansas Field Army, American Cancer Society, with its county organizations, has performed valuable services for many years in its program of education and service. The Field Army is carrying cancer control education into the schools, the P.-T. A. and home demonstration groups, in our state particularly. The Field Army holds diagnostic clinics in various counties and is responsible for the annual campaign for funds for the American Cancer Society every April. This organization distributes literature and provides films about cancer. The State Cancer Commission cooperates in the program of lay education.

Special education for the medical profession in cancer control is being sponsored by a special committee of the Cancer Control Committee, Arkansas Medical Society, and the Arkansas Field Army, American Cancer Society, with one-day post-graduate programs in each of the 10 councilor districts of the Arkansas Medical Society by out-of-state cancer specialists this spring. These

seminars, planned for the month of May, are being made possible by the Commission through use of its federal funds allocated for this purpose. It is hoped that by taking the information into the various districts of the state, more doctors will be able to avail themselves of the opportunity than one central meeting could afford.

It is hoped that in the future funds will be available to give educational opportunities for specialized study to those concerned with the care of cancer patients, including physicians, dentists, nurses and students preparing for these professions.

At the meeting of the State Cancer Commission in October, 1946, an Advisory Committee to the Commission was created, this committee being composed of: Committee on Cancer Control, Arkansas Medical Society; Representative from the Arkansas Division, American Cancer Society; Representative from the Arkansas Hospital Association.

Again this year our Congress has before it a bill to authorize and request the President of the United States to undertake to mobilize an adequate number of the world's outstanding experts and coordinate and utilize their services in a supreme endeavor to discover means of curing and preventing cancer. This bill, which was introduced both in the Senate of the United States and the House of Representatives in January, calls for an appropriation of one hundred million dollars. A huge drive against cancer is launched on all fronts, national, state and local.

Keen interest in cancer control has been expressed by many groups and individuals who have contacted the State Cancer Commission office since its opening the first of the year. This indicates a growing awareness on the part of the public, as well as the medical profession, that an intensive and well-aimed and well-organized program for cancer control must be carried forward in Arkansas. The public is eager to know the program in Arkansas, its services, and wherein they as individuals may have a part.

Cancer is not a disease that can be controlled by the special effort of one group or by one activity. To have complete service within the state, there must be integration of effort of all organizations and individuals—cohesion, cooperation and understanding. And there must be leadership, furnished by the Arkansas Medical Society through its program of the State Cancer Commission.

The central figure in cancer control and in cancer education is the private physician. He sees the patient first. Often his advice and its reception by the patient decide the ultimate outcome of the case. He knows the background of medicine and surgery as well as the details of the latest methods of diagnosis and treatment.

The cooperation of all doctors in Arkansas, and particularly those whose work is more closely related to the complex problem of cancer, is needed to realize the maximum effectiveness of this program.

#### REPORT OF THE NINETY-FIFTH ANNUAL SESSION OF THE AMERICAN MEDICAL ASSOCIATION

L. J. Kosminsky

The first meeting of the House of Delegates convened in the Colonial Room of the St. Francis Hotel and was called to order at 10:05 A. M. by the speaker, Dr. R. W. Founts.

The preliminary report of the Reference Committee on Credentials was given by Dr. G. Henry Mundt, chairman, who stated that at 10:00 o'clock there were 134 delegates registered.

The Committee on Distinguished Service Awards sub-



mitted the following names for distinguished service awards: Dr. A. J. Carlson, Chicago; Dr. Torald Sollmann, Cleveland, and Dr. Francis Carter Wood, New York. The speaker declared Dr. A. J. Carlson, who had received the majority of the votes cast, to be elected by the House of Delegates to receive the Distinguished Service Award of the American Medical Association.

In order that greater efficiency could be given to the consideration of the problems that are presented, a recommendation was made to the Committee on Rules and Order of Business that a section of the meeting place be reserved exclusively for members of the House of Delegates of the Association.

It was urged that the House of Delegates of State Societies send in any resolution they wished put before the House of Delegates of the American Medical Association immediately after meeting in order that they have a chance to publish them well in advance of the annual session.

Tribute was paid to officers and former members of the House who had departed from this life since the last meeting. The name of Dr. Edward E. Barlow, who was a member from Arkansas, was called.

In appointing reference committeemen, earnest endeavor was made to make them truly representative, and particularly adapted in special types of committee work.

It was reported that the membership in the American Medical Association had increased 1,533 from April 1, 1945, to April 1, 1946. A steady increase is anticipated during the next year as more and more physicians are being released from the Armed Forces.

**Apportionment of Delegates**—At the annual session, 1925, and every third year thereafter the House of Delegates shall appoint a committee of five on re-appointment, of which the speaker and the secretary shall be members. The committee shall apportion the delegates among the constituent associations in accordance with Article 5, Section 3, of the Constitution, and in proportion to the membership of each constituent association as recorded in the office of the Secretary of the American Medical Association on April 1 of the year in which the apportionment is made. This apportionment shall take effect at the next succeeding annual session, and shall prevail until the next triennial apportionment, whether the membership of the constituent association shall increase or decrease.

The last apportionment was made at the annual meeting held in Chicago in 1943. A new apportionment was due to be made in 1946.

The annual conference of Secretaries of Constituent State Medical Associations and Editors of State Medical Journals, which usually is held late in November each year, was postponed in 1945 because of adverse travel conditions and also because the meeting of the House of Delegates was set for the first of December.

Dr. Olin West tendered his resignation as Secretary and General Manager of the American Medical Association on March 15, 1946, after twenty-four years of devoted service.

Dr. George F. Lull was appointed Associate General Manager of the American Medical Association on January 1, 1946, and was appointed to serve as Secretary of the Association until the meeting of the House of Delegates, after the retirement of Dr. Olin West.

Dr. James C. Sargent, Wisconsin, presented the following resolution, which was referred to the Reference Committee on Medical Education:

Whereas, a large number of recent medical school graduates have been called to active duty in the Armed

Forces without opportunity to submit to examination for license to practice medicine in the state in which they are to locate; and

Whereas other older physicians, after abandoning their established home and practice to serve their country, now find it necessary or desirable to relocate in some state other than the one in which they had been practicing,

Be It Resolved, That this Association hereby record its belief that any physician who has graduated at an approved medical school in the United States with the degree of Doctor of Medicine and who has served honorably as a medical officer in the United States Army, Navy or Public Health Service during the recent war has, by the high standards of his medical education, by the requirements of his commission and by his good record of service, furnished proof above any reasonable question that he is ethically and professionally qualified for a license in any state or federal district in the Union; and

Be It Further Resolved, That a proper memorial to this effect be forwarded to the governor and to the board of medical examiners of each state urging each to give every possible consideration to any applicant who has been granted the degree of Doctor of Medicine by an approved medical school in the United States and who has served honorably in the United States Army, Navy or Public Health Service, and wherever it is legally possible to license such applicant without examination.

Vice Admiral Ross T. McIntire gave an address in which he expressed his appreciation for the fine work done by all the physicians during the war years.

A request for appointment of reference committee on Executive Session for the coming session of the House in December, 1946, was made by Dr. R. L. Sensenich, chairman, Board of Trustees. This request was made in order that time would be allowed to study the report before the meeting.

The following nominations were made, carried and closed: Dr. Olin West, Nashville, Tennessee, for President-Elect; Dr. Edward L. Bortz, Philadelphia, Vice-President; Dr. George F. Lull, Chicago, for Secretary; Dr. Josiah J. Moore, Chicago, Treasurer; Dr. Roy W. Founts, Omaha, Speaker of the House of Delegates; Dr. F. F. Borzell, Philadelphia, for Vice-Speaker of the House of Delegates.

New York City was chosen for the meeting place for the 1949 annual session of the American Medical Association.

Sir Steward Duke-Elder was nominated Honorary Fellow.

A silver service set was presented Dr. and Mrs. Olin West for the long and faithful service to the American Medical Association.

#### REPORT OF THE COUNCIL Euclid M. Smith, Chairman

September 1, 1946—Approved fee schedule, Part I, Veterans' Administration medical care program. Appointed committee to serve on this program. Received resignation of Peter A. Deisch and accepted same, effective with close of the 1947 legislative session. Authorized a committee to select an attorney as counsel for the Society.

December, 15, 1946—Elected John H. Wilson, councilor from the Fifth District to succeed the late S. A. Thompson. Elected Euclid M. Smith chairman of the Council. Authorized the appointment of a committee on rural health. Authorized attendance of Drs. Buchanan and Gladden at the A. M. A. Rural Health Conference, February 7th-8th. Received the report of the Committee



on Medical Service and accepted this report for subsequent action by the House of Delegates. Authorized calling of a special session of the House of Delegates to act on this report in January.

January 26, 1947—Announced Carl E. Bailey as counsel for the Society. Received and approved a proposed plan for student admissions to the University of Arkansas School of Medicine.

REPORT OF THE TREASURER  
Paul L. Mahoney

Balance, April 1, 1946:		
U. S. Bonds.....	\$11,400.00	
Commercial National Bank,		
Little Rock .....	5,403.67	\$16,803.67
Cash Receipts:		
Transferred from Secretary.....	20,000.00	
Interest—U. S. Bonds.....	285.00	
Arkansas Hospital Association....	223.25	20,508.25
		<hr/>
		\$37,311.92
Disbursements—Vouchers .....	17,960.91	
Balance, March 31, 1947:		
U. S. Bonds.....	\$11,400.00	
Commercial National Bank,		
Little Rock .....	7,951.01	\$19,351.01

REPORT OF THE SECRETARY

The past year has been one of the most active in the annals of this organization. It is apparent that the return of our members from military service, who have an enthusiastic desire to further the aims of private practice of medicine and the extension of medical care of highest quality, has stimulated the Society to new and greater efforts. Committee activity has been more earnest and continuous throughout the year than we have observed in any previous year. Certain of these merit particular mention, notably the untiring work of the Committee on Medical Service and Public Relations, which has brought forth a proposed plan for prepayment medical and hospital care; the Committee on Veterans' Medical Care which has effected a successful program for medical care of the veteran in his home community; and the Committee on Medical Education and Hospitals, whose studious and sincere attention to the needs of the University of Arkansas School of Medicine has, at long last, brought the promise of a real Class "A" medical school to near realization.

Normal activities of the Society have been carried on with the fullest cooperation of all members. It seems not improbable that this Society shall soon attain a position of leadership among the state medical societies of the country.

Membership—1,081—is at the highest level reported at this time in many a year. Younger physicians have entered into the program of the Society with eagerness and have shown a most commendable desire to do more than their part.

The Journal of the Arkansas Medical Society, by reason of increased revenues made possible from a larger number of advertisers, has grown in size. As the official publication of the Society, it should be attentively read from month to month by the membership. A proper spirit of reciprocity demands that our supporting advertisers receive the patronage of our members.

Your secretary has served this Society since September 1, 1933. In this period of time we have had opportunity to make lasting friendships among you, to know all of you as capable, conscientious physicians, as good men among men. We have observed the increasing activities of the organization from a position well out in the field

of play and have formulated some personal ideas of how best the work of advancing the cause of medicine and public welfare through this organization may be continued. We are convinced that the time has arrived when this Society should avail itself of the full-time services of an able administrative secretary, an individual who can coordinate the various activities of the Society by executive ability of the highest order. The duties of the secretary's office have reached the point where full-time service is essential if the growth of the Society is to be maintained. For such a position, it is highly probable that a layman can best serve the organization. The actual mechanics of such a change are simple even though constitutional changes may ultimately be required. The institution of full-time secretary service doubtless requires an increase in the annual membership assessment. It is our considered opinion that an increase in the assessment cannot but result in increased service to our members, the public, the state and the nation.

We, accordingly, recommend that this House of Delegates take steps at this annual session to make this suggestion operative at the earliest possible opportunity.

Again we wish to express our heartfelt thanks for the privilege that has been ours to serve you for another year. Without your cordial assistance and encouragement we would have attained but little.

M. L. Norwood, on behalf of the Society, presented an inscribed watch to Peter A. Deisch, retiring counsel of the Society, paying tribute to the unselfish service performed by Mr. Deisch for the medical profession in the past twenty years. In accepting the watch, Mr. Deisch said:

My Brothers: That is the way in which lawyers address others of their profession, and somehow it seems the proper term to use now.

To have my efforts in our joint behalf thus recognized is most satisfying and warming. I say "in our joint behalf," because I feel that I am a part of this organization, and that what is good for it, for you, is good for me. As long as I live, organized medicine and its best interests will hold my attention.

This organization is worthy of the best thought and effort of its membership. By its constant watchfulness, it secures results that are beneficial to the public, and therefore of advantage to all the people as well as, incidentally, to the individuals who compose it. It has been the primary force that has so greatly improved the opportunity for the young man and woman to secure a medical education at home, second to none in America. It then follows the young practitioner with a guiding hand through the formative years of his practice, and then throughout his life until the final notice is taken of his earthly departure. During all the intervening time, its collective counsel, its scientific training, and its fraternal association is with him. Through its watchfulness, two of the greatest imposters of modern America became one with Ninevah and Tyre.

I have become well acquainted with many of you, and always to know you better is to become more convinced of the truthfulness of these statements. With some I became well acquainted through the medium of that solace which busy practitioners sometimes find attractive at the annual meetings; but whatever the method, it was always pleasant.

To say that I have at all times felt honored and uplifted by my association with you is but a modicum of the truth, and of my real feelings.

This tribute from you, with the beautiful watch, which



I shall wear forever as a permanent reminder of the occasion, is reciprocated by the warmest feelings of my heart.

H. Fay H. Jones discussed the activities of the American Association of Physicians and Surgeons in connection with pending national legislation.

Henry G. Hollenberg presented the following report:

The committee, consisting of Drs. Fay Jones, Charles Henry and myself, appointed by you to study various health and accident policies for the members of the Society, has met formally on two occasions and several times informally. The members of this committee elected me as chairman.

We have studied five policies submitted by the following companies:

1. Rather & Beyer,  
The Commercial Casualty Insurance Co.,  
Newark, New Jersey.
2. W. M. Apple & Company of Little Rock,  
Provident Life and Accident Insurance Co.,  
Chattanooga, Tennessee.
3. Pratt C. Rummel, Agent, Little Rock,  
Continental Casualty Company,  
Chicago, Illinois.
4. C. W. Cameron, Agent, Oklahoma City,  
North American Accident Insurance Co.,  
Chicago, Illinois.
5. American Insurance Company of Texas,  
Dallas, Texas.

The first four companies mentioned offer almost identical policies which can be written on a group basis if approximately 50 per cent of the membership apply. The policy is non-cancellable except for failure to pay premiums, though the entire group can be canceled. All members are eligible without physical examination. Benefits commence on the eighth day and are paid weekly for a year for any one sickness claim and for five years on an accident claim. Each policy carries a small death benefit in case of accidental death. The maximum coverage is \$50.00 per week except for women members and those between 65 and 70 years who may only take \$25.00 a week.

The fifth company mentioned above does not offer any group policy and this committee does not feel advised to act on their policy, as it is an individual matter. However, the company does not appear to be strong financially, whereas the other four are all extremely strong. In addition, this fifth company, while offering benefits for two years in case of illness and from the first day, only offers two years in case of accident and the premium is approximately 40 per cent more.

There are slight differences in the four contracts first mentioned. For instance, the Provident covers for only two weeks in case of hernia.

While these four contracts are for all intents and purposes identical and in fine companies, it is the unanimous opinion of the committee that preference might well be given to the first company mentioned, represented by Rather & Beyer. This company is very strong, is already covering the Arkansas Bar Association, and has been suggesting and working on this matter with the Pulaski County Medical Society for six years, whereas the other companies have been invited to submit bids. The policy that this company offers is equally good or slightly better than any other we have examined.

The committee suggests that if it meet your approval that some form of written indorsement over the signature

of the officers of the Society might well be given in order to help these agents approach the members of the Society. This, of course, might first be brought before any other group from the Society which you would deem proper.

By motion (McDaniel-Robins), the report was adopted.

By motion (Evans-McDaniel), approval was given to a meeting of delegates from the Sixth Congressional District to make recommendation to the Governor for appointment in a vacancy occurring on the Arkansas State Board of Health.

In district caucuses, the following Nominating Committee was selected

First—L. H. McDaniel

Second—S. J. Allbright

Third—J. O. Rush

Fourth—H. T. Smith

Fifth—John P. McAllister

Sixth—R. C. Dickinson

Seventh—E. Driver Rowland

Eighth—Hoyt R. Allen

Ninth—J. C. Gladden

Tenth—Fred H. Krock

The House of Delegates then adjourned.

## GENERAL SESSION

Thursday Morning, April 17, 1947

The meeting was called to order by President Wade at 9:30 A. M.

L. T. Evans, Batesville, gave the invocation.

Henry G. Hollenberg, Vice-president, Pulaski County Medical Society, welcomed the Society to Little Rock.

"It gives me great pleasure to speak in behalf of the Pulaski County Medical Society and in place of our President, R. E. McLochlin, who is out of the city. We welcome you most heartily to Little Rock for this, the 71st Annual Session of the Arkansas Medical Society. There is every reason to predict that this session will be the largest and one of the best in the history of the Society.

"This new location for the meeting has been selected for your comfort and to afford a better presentation of the fine exhibits. An excellent scientific program has been prepared. Much important business will be transacted. Entertainment is arranged. The weather is even auspicious this morning. The members of our Society are delighted that you are here and we hope that your visit will be profitable and pleasant."

Julius H. Hellums, Dumas, responded to the address of welcome.

"It is my privilege and honor to render, for the members of the Arkansas Medical Society, an expression of appreciation for the invitation to attend another state meeting in Little Rock and for the welcome just given us.

"We anxiously look forward to not only a most instructive meeting, but also to the social side and the gracious hospitality always extended by the members of the Pulaski County Medical Society.

"I am sure that a great many of the members of the Arkansas Medical Society find themselves in the same position that I am: that is, being welcomed home, for Little Rock seems to be the professional home of many



students. We find ourselves in a similar position to the country boy who went to town. Many times I have been told that you can get the boy out of the country, but you cannot get the country out of the boy. All of us who graduated from the University of Arkansas School of Medicine find ourselves in a similar position. You can get the student out of Little Rock, but you just can't get Little Rock out of the student.

"It is with a great deal of interest and pride that I have followed our medical legislative and economic endeavors during the past few months, as well as professional progress in the state of Arkansas. Medicine is passing through a crucial period now, nationally, as well as in Arkansas. It is my feeling that medicine in Arkansas has made and is now making great strides toward an even brighter future for the layman and professional man alike. Surely it is in meetings just such as this one that ideas are born which shape and effect this progress which is being made.

I wish to thank again our gracious hosts for the privileges, scientific opportunities and entertainment to which we look forward during this meeting.'

The scientific program then proceeded in order.

"Primary Tularemia of the Lung Masquerading Other Forms of Lung Pathology" (lantern demonstration), Major H. E. Cluxton, Jr., Major Eugene E. Clifton and Lieutenant John A. Worley, Army and Navy General Hospital, Hot Springs National Park.

"Our Present Concepts of the Rh Factor and Their Clinical Application," John C. Faris, Jonesboro, discussed by I. F. Jones, Fort Smith; A. S. Koenig, Fort Smith; and John C. Faris, in closing.

"Organic Causes of Vomiting in the First Six Months of Life" (lantern demonstration), F. E. Shearer, Fort Smith; discussed by F. H. Krock, Fort Smith; and F. E. Shearer, in closing.

"Disorders of the Female Bladder: Classification and Treatment," Geo. C. Coffey, Hot Springs National Park, discussed by H. Fay H. Jones, Little Rock; Grady W. Reagan, Little Rock; and Geo. C. Coffey, in closing.

"Urological Pathology in the Making" (lantern demonstration), T. Leon Howard, Denver.

### PUBLIC SESSION

#### Robinson Auditorium

#### Thursday Evening, April 17th

Henry G. Hollenberg, Vice-president, Pulaski County Medical Society, called the meeting to order.

Rev. R. D. Adams, First Presbyterian church, gave the invocation.

H. King Wade addressed the meeting on "Objectives of the Arkansas Medical Society."

Harrison H. Shoulders, Nashville, Tennessee, President, American Medical Association, addressed the meeting on "Some Problems in the Economics of Medical Care."

The meeting then adjourned.

### SCIENTIFIC SESSION

#### Friday Morning, April 18th

The meeting was called to order by President Wade and Past-president H. T. Smith took the chair. The scientific program proceeded in order.

"Early Ambulation," J. H. Pinson, El Dorado.

"This Problem of Neurosis," Joe Verser, Harrisburg; discussed by Louis A. Cohen, Little Rock, L. C. McVay, Marion, A. C. Kolb, Little Rock, and Joe Verser, in closing.

"The Diagnosis and Treatment of Disorders of the Lung Requiring Surgical Resection" (lantern demonstration), J. K. Donaldson, Little Rock.

O. C. Melson, Little Rock, then took the chair as moderator of the Symposium on Hypertension: "The Physiology of Hypertension," A. H. Lawton, Little Rock.

"The Medical Management of Hypertension," E. Driver Rowland, Hot Springs National Park.

"The Surgical Management of Hypertension" (lantern demonstration), Geza de Takats, Chicago.

### MEMORIAL SERVICES

#### Friday Morning, April 18, 1947

President Wade convened the Memorial Session immediately following the close of the scientific session.

Rev. E. W. Callies, Grace Lutheran Church, Little Rock, gave the invocation.

Mrs. C. H. Killian, accompanied by Mrs. Conrad Farrell, sang "Turn Unto Me" (Dvorak).

W. H. Mock, Prairie Grove, chairman of the Committee on Necrology, gave the Memorial Address.

The Secretary read the names of the deceased members.

#### IN MEMORIAM

John Cullen Beard, Pine Bluff, May 7, 1946

Louis Marshall Smith, Russellville, June 5, 1946

E. V. Dildy, Nashville, June 6, 1946

James Allen Robinson, Cincinnati, June 16, 1946

John T. McLein, Gurdon, June 20, 1946

James L. Dibrell, Little Rock, July 2, 1946

Ruel R. Robins, Texarkana, August 24, 1946

James Pinkney Clemens, Stephens, August 5, 1946

Paul C. Eschweiler, Little Rock, August 25, 1946

Anthony C. Thiollere, North Little Rock, September 2, 1946

Samuel J. McGraw, El Dorado, September 6, 1946

Leonard R. Boen, Clarksville, September 11, 1946

James I. Thompson, Yellville, September 11, 1946

Louis S. Dunaway, Jr., Conway, September 18, 1946

John S. Agar, Jr., Little Rock, October 15, 1946

Samuel A. Thompson, Camden, November 24, 1946

John R. Lynn, Hazen, December 2, 1946

William J. Curry, Rogers, January 4, 1947

Vernon MacCammon, Arkansas City, January 6, 1947

Frank Nisbett, Brookland, January 11, 1947

James C. Blackwood, Eureka Springs, January 22, 1947

Ira W. Ellis, Monette, January 27, 1947

William D. Freeman, Mount Ida, February 3, 1947

Shelby Justus, Swifton, February 16, 1947



Thomas Z. Johnson, Walnut Ridge, March 3, 1947

Thomas F. Hudson, Luxora, March 20, 1947

William G. Hodges, Malvern, March 22, 1947

Carlos C. Stevens, Blytheville, March 24, 1947

Mrs. C. W. Kitchens, DeQueen, read the names of the deceased members of the Auxiliary.

Mrs. C. H. Killian, accompanied by Mrs. Conrad Farrell, sang "The Twenty-third Psalm" (Mal-lotte).

Rev. E. W. Callies gave the benediction.

## SECTION ON OPHTHALMOLOGY AND OTOLARYNGOLOGY

Friday Morning, April 18, 1947

The Section on Ophthalmology and Otolaryngology met in Parlor "B," Hotel Marion, Chairman E. C. Moulton, Fort Smith, presiding.

The following program was presented:

Chairman's Address—"Leiomyoma of the Iris."

"Non-Congenital Cataracts in Juveniles," Raymond Cook, Little Rock.

"Submucous Resection," Samuel Fomon, New York, New York.

A luncheon with round-table discussion followed the scientific session.

Officers elected are:

Chairman, R. R. Kirkpatrick, Texarkana.

Secretary—K. W. Cosgrove, Little Rock.

## SCIENTIFIC SESSION

Friday Afternoon, April 18, 1947

The meeting was called to order by Vice-president J. Harry Hayes and the program proceeded in order.

"President's Address," H. King Wade, Hot Springs National Park.

"Present Trends of Medical Education in Arkansas," H. Clay Chenault, Little Rock.

"The Evolution of Vitamin M (Folic Acid)" (lantern demonstration), Paul L. Day, Little Rock.

"The Common Anemias and Their Mechanism," S. T. W. Cull, Little Rock.

"Cancer of the Stomach," J. Donald Hayes, Little Rock.

"Student Health Service at the University of Arkansas," Fount Richardson, Fayetteville (read by J. W. Butt, Fayetteville).

"The Rhinoplastic Operation" (lantern demonstration and motion picture), Samuel Fomon, New York.

The meeting adjourned at 5:30 P. M.

## SCIENTIFIC SESSION

Saturday Morning, April 18th

The meeting was called to order at 9:20 A. M.

by President Wade and the scientific session proceeded in order:

"Old Folks" (lantern demonstration), R. B. Robins, discussed by J. O. Rush, Forrest City.

"New Drugs in the Treatment of Malaria," H. Packer, Memphis (lantern demonstration).

"Present-Day Treatment of Diabetes," Alexander Marble, Boston.

"The Psychological Moment in the Treatment of Tuberculosis," J. D. Riley, State Sanatorium.

"The Surgical Aspects of Cancer" (lantern demonstration and motion picture), Warfield M. Firor, Baltimore.

"Discussion of Changes in the Nursing Practice Acts," Mr. James I. Teague, Little Rock.

The session adjourned at 12:15 P. M.

## FINAL SESSION, HOUSE OF DELEGATES

The meeting was called to order at 2:00 P. M. by President Wade.

The Secretary called the roll.

The following delegates and members seated as delegates by action of the House of Delegates (motion McCurry-Goldstein) were present:

ARKANSAS—S. A. Drennen; BOONE—D. L. Owens; CLAY—F. H. Jones; COLUMBIA—John L. Ruff; CRAIGHEAD-POINSETT—J. H. McCurry; CRITTENDEN—L. C. McVay; CROSS—Thos. Wilson; DESHA—H. T. Smith; DREW—J. P. Price, Jr.; GARLAND—Chas. H. Lutterloh, E. Driver Rowland, Euclid M. Smith; GRANT—Miles F. Kelly; HOT SPRING—W. F. Barrier; INDEPENDENCE—Rector Hooper; JEFFERSON—L. K. Hundley; JOHNSON—J. M. Kolb; LITTLE RIVER—Joe Shelton; MILLER—H. E. Murry; NEVADA—A. S. Buchanan; OUACHITA—John P. McAlister; POPE-YELL—Roy I. Millard; PULASKI—Henry G. Hollenberg; Chas. R. Henry, C. C. Reed, Jr., Hoyt R. Allen, Chas. W. Wickard, T. D. Brown, M. E. McCaskill, Gilbert O. Dean, W. C. Langston; SAINT FRANCIS—J. O. Rush; SEBASTIAN—Fred H. Krock, D. W. Goldstein; SEVIER—C. E. Kitchens; WASHINGTON—A. H. Hathcock; WHITE—S. J. Allbright; UNION—E. J. Munn.

Other members of the House of Delegates present were President Wade, President-Elect Evans, Past-presidents H. T. Smith, A. S. Buchanan, R. B. Robins, M. E. McCaskill, L. J. Kosminsky, Jos. F. Shuffield, S. J. Allbright and O. J. T. Johnston; Councilors J. O. Rush, P. W. Lutterloh, J. G. Gladden, Earle H. Hunt, Euclid M. Smith and Ellery C. Gay, and Secretary Brooksher.



Hoyt R. Allen presented the report of the Nominating Committee:

President-Elect—P. W. Lutterloh, Jonesboro;  
J. O. Rush, Forrest City.

1st Vice-president—T. D. Brown, Little Rock.

2nd Vice-president—L. M. Lile, Hope.

3rd Vice-president—Fount Richardson, Fayetteville.

Treasurer—Paul L. Mahoney, Little Rock.

Secretary—W. R. Brooksher, Fort Smith.

Councilor, First District—L. H. McDaniel, Tyronza.

Councilor, Third District—S. A. Drennen, Stuttgart.

Councilor, Fifth District—J. H. Wilson, Magnolia.

Councilor, Seventh District—Euclid M. Smith, Hot Springs.

Councilor, Ninth District—D. L. Owens, Harrison.

Delegate to the American Medical Association—  
D. A. Rhinehart, Little Rock.

Alternate to the American Medical Association—  
R. B. Robins, Camden.

By motion (Krock-Rush), the report of the Nominating Committee was received.

No nominations were received from the floor.

J. O. Rush expressed appreciation for the honor of nomination but stated that he wished to withdraw his name.

By motion (Rush-McCurry), the Secretary cast the unanimous ballot of the House of Delegates for P. W. Lutterloh as President-Elect.

By motion (Rush-Krock), the other officers were elected unanimously.

H. T. Smith read the report of the Reference Committee.

The Reference Committee met at 2 P. M., April 18th, to study the written reports made by the chairmen of the various committees as made to the House of Delegates on April 17th. This Reference Committee wishes to report as follows:

We wish to commend the reports as made by the majority of the chairmen and we wish to also express our thanks to all the members of the various committees. We wish to make special reference at this time to the report of Dr. Joe Shuffield and the rest of the members of his committee and we recognize with thanks the unselfish service they rendered. We wish to also recognize Dr. Chas. Henry and the remaining members of the Medical Service and Public Relations Committee for the thorough and untiring service that their group has rendered.

We would also commend Dr. T. D. Brown and his committee of Arrangements and Dr. Chas. Lutterloh and his committee on Scientific Work in the presenting of this year's meeting. Dr. Euclid Smith and his committee certainly deserve the thanks of our Society and our profession for their work this year. The work of the Auxiliary and especially their cooperation in the cancer work has been a source of satisfaction to all concerned. Lack of time prevents this committee from acknowledging all the good work that has been done by the various physicians this past year for our Society and our profession. We

believe this meeting to be one of the best medical gatherings in the history of our association, both from the character of the papers along with the timely discussions and also the spirit of harmony and cooperation that has been most evident from every viewpoint.

This committee wishes to report that we cannot agree on the report of our Secretary when he suggests that a new all-time secretary be named, unless the all-time secretary is Bill Brooksher. We express our appreciation and admiration for our Secretary and we hope this happy relationship continues for a long time.

We wish to state that the report of the Committee on Medical Economics is incomplete due to the fact that it is signed by only one of this committee and furthermore the House of Delegates at a called meeting in December, 1946, instructed the Committee on Medical Service and Public Relations to continue its study. This original report was ratified at the December meeting with the exception of Article 4, which was withdrawn with the consent of that committee.

In closing this committee views with satisfaction and pride the spirit of cooperation so delightfully evidenced by our young physicians recently returned from our armed forces and we urge them to enter the work of their various county societies with vigor, energy, and loyalty for the ideals of our medical profession.

(Signed) H. T. SMITH

R. C. DICKINSON

P. W. LUTTERLOH

L. H. McDANIEL

By motion (Allen-Hunt), the report of the Reference Committee was adopted.

Euclid M. Smith read the report of the Council. April 16th.

Nominated S. W. Douglas, Eudora, for affiliate membership.

Nominated S. G. Daniel, Marshall, for life membership. Allowed and ordered paid expenses of the 71st Annual Session.

Nominated Carl A. Rosenbaum and Paul L. Mahoney to the Governor for appointment to the Arkansas State Cancer Commission.

Authorized 100 pages in the Journal for the Auxiliary in publication of history of pioneer doctors.

Expressed disapproval of the appointment of Alfred W. Dent to the Federal Hospital Council.

Approved report of special committee on group health and accident insurance and passed this report to the House of Delegates for action.

Approved selection of nominees for vacancy on The State Board of Health from the Sixth Congressional District by delegates from that district.

Recommended H. King Wade to the Governor for appointment on the Legislative Council.

April 17th—Nominated H. King Wade to the Governor for appointment to the Arkansas Legislative Council.

April 18th—Allowed \$500 for expenses to Committee on Medical Service and Public Relations. Made request for funds to The State Medical Board of the Arkansas Medical Society in a case of illegal practice. Authorized retention of Peter A. Deisch as consultant attorney. Allowed \$100 to Auxiliary for publication of their yearbook. Recommended increase in annual assessment to ten dollars for 1948. Appointed committee to study matter of executive secretary and to select one.

April 19th—Received report of Hoyt R. Allen and Council representative in charge of technical exhibits. Extended vote of thanks to Dr. Allen. Discussed affiliation of Arkansas Medical Society with the Legislative Council



and referred the matter to the House of Delegates without recommendation. Approved resolution submitted by A. C. Shipp as follows:

"For many years in our state there has been a woeful lack of interest and understanding on the part of physicians and lay persons of the needs of our State Hospital for Nervous Diseases, and the institution has been handicapped in its work by totally inadequate appropriations for maintenance.

"Under the direction and leadership of our esteemed Governor, the Honorable Ben Laney, full recognition has been made of the needs of the institution by increased appropriations for maintenance and construction, at both the Little Rock and Benton units.

"Therefore, be it resolved by the Arkansas Medical Society that we publicly acknowledge our appreciation to the Governor and the Legislature for the very fine constructive work which they have done; and we do hereby pledge the best efforts of our Medical Societies to the end that we will co-operate with those who have been made directly responsible for the care of approximately five thousand mental patients. We pledge our support to the members of the Board of Control and to the Superintendent.

"Be it further resolved that we record our appreciation of the attitude of the Governor when he stated publicly that political interference in the management of the institution is not to be tolerated any longer.

"Inasmuch as the Press of the state has performed invaluable service in acquainting our people with the needs and conditions at the institution, we wish to record our thanks and acknowledge our debt to them for a splendid public service well done.

"A copy of this resolution to be sent to the Governor, the chairman of the Board of Control, and to the newspapers of the state."

Voted sympathy to Drs. E. F. Ellis and H. Moulton, absent because of illness.

By motion (Smith-Allbright), the report of the Council, with the exception of the section dealing with an increase in the annual membership assessment, was adopted.

By motion (Smith-Hunt), the House of Delegates unanimously approved an increase in the membership assessment to ten dollars, effective with 1948. (Standing vote.)

Secretary Brooksher presented the following constitutional amendment submitted by the Council:

Article XI—In the second sentence, to substitute the figures "\$25.00" for "\$5.00."

By motion (Evans-Rush), the following amendment to the By-Laws was received from the Section on Ophthalmology and Otolaryngology

Chapter IV, Section 2—To add an additional sentence reading:

"The Section on Ophthalmology and Otolaryngology shall be represented in the House of Delegates by one delegate."

The secretary read the selections from the congressional districts for appointment to ex-

piring terms on The State Medical Board of the Arkansas Medical Society:

First Congressional District—

Joe Verser, Harrisburg

J. E. McGuire, Piggott

J. W. Butts, Helena

Fourth Congressional District—

L. J. Kosminsky, Texarkana

R. C. Dickinson, Horatio

R. R. Nowlin, State Sanatorium

Fifth Congressional District—

J. M. Kolb, Clarksville

C. Ray Williams, Morrilton

Hoyt R. Allen, Little Rock

By motion (Allbright-McCurry), these recommendations were approved.

Secretary Brooksher read the following recommendations for appointment to a vacancy existing on the Arkansas State Board of Health in the Sixth Congressional District:

Johnnie P. Price, Jr., Monticello

Chas. H. Lutterloh, Hot Springs

Louie G. Martin, Hot Springs

By motion (Rush-Evans), the recommendations were approved.

L. K. Hundley presented the following resolution from the Woman's Auxiliary to the Arkansas Medical Society:

Be it hereby resolved by the House of Delegates of the Arkansas State Medical Society in regular session April 19, 1947, the following:

Whereas attention has been called to the contemplation of the British Government to send to the United States five thousand offsprings of American negro troops, and white women born in Great Britain during World War II; and

Whereas this organization is mindful of the obligation which will be placed on our white and negro society to provide for such public charges, adequate education and medical care in our already over-taxed facilities; and

Whereas transportation of this group to these United States would establish a precedent which constitutes a real menace to our social, economic and political structure; now

Therefore be it resolved, That this organization expresses to our Senators and Representatives in Congress our strong opposition to enactment of any legislation permitting these individuals to enter the United States.

By motion (Kolb-McCurry), the resolution was approved.

By motion (Kolb-Goldstein), approval was granted for the Auxiliary to affiliate with the Arkansas Legislative Council.

By motion (Henry-McCurry), the Society voted to affiliate with the Arkansas Legislative Council.

By motion (Millard-Hunt), the Society extended a rising vote of thanks to the Pulaski County



Medical Society, the Robinson Auditorium staff, the press, the radio, the hotels, the Chamber of Commerce and to the citizens of Little Rock for courtesies and kindnesses during the session.

By motion (Hunt-McCurry), the House of Delegates then adjourned.

### FINAL GENERAL SESSION

**Saturday Afternoon, April 19, 1947**

President Wade convened the final general session immediately following adjournment of the final session of the House of Delegates.

Seated with President Wade on the rostrum were the following Past-Presidents: S. J. Albright, H. T. Smith, O. J. T. Johnston, Jos. F. Shuffield, A. S. Buchanan, L. J. Kosminsky, M. E. McCaskill and R. B. Robins.

President Wade expressed his personal appreciation to officers, committeemen and the membership for the cooperation which he had received during his term of office.

T. D. Brown and Euclid M. Smith escorted L. T. Evans to the rostrum where he was presented with the gavel by retiring president Wade who assured him that his term of office would be a happy experience since he would receive the same wonderful support from the entire membership.

President Evans spoke of his love for the Arkansas Medical Society and that this was his 36th consecutive session to attend. He called attention to medical progress and organization strides since he began the practice of medicine and asked for the full support of the organization in the year ahead.

President Evans then introduced J. O. Rush, retiring councilor from the third district and paid tribute to his years of service in the Society.

Dr. Rush said that he intended to carry on in the work of the Society and appreciated this expression of kindness.

D. W. Goldstein extended an invitation for the Society to meet in Fort Smith in 1948.

Hoyt R. Allen extended an invitation for the Society to meet in Little Rock in 1948.

A. S. Buchanan extended the usual invitation for the Society to meet in Prescott in 1948.

By vote, the Society selected Little Rock as the meeting place for 1948. By motion (Hunt-Kolb), this vote was made unanimous.

By motion (Gladden-Price), the Society adjourned sine die.

### REGISTRATION 1947 ANNUAL SESSION

ARKANSAS—W. T. Champion, S. A. Drennen, C. W. Rasco, Jr., R. H. Whitehead, Jr.; ASHLEY—L. C. Barnes, A. E. Cone, M. C. Crandall, R. W. Hipsley, M. J. Mobley, J. H. Moseley; BENTON—Guy Hodges, J. L. Jackson, Geo. M. Love, A. L. Peacock, C. S. Wilson; BOONE—J. G. Gladden, James C. Gladden, Ulys Jackson, H. V. Kirby, O. B. McCoy, D. L. Owens, W. H. Poynor; BRADLEY—R. E. Grene, W. J. Hunt, W. B. Reasons; CARROLL—A. L. Carter, J. F. John, V. E. Sammons, W. A. Woodcock; CLARK—J. P. Bremer, R. L. Bryant, L. E. Drewery, J. M. Norton, Joe W. Reid, V. L. Toombs; CLAY—F. H. Jones, N. J. Latimer; CLEVELAND—W. G. Hancock, J. H. Scroggins; COLUMBIA—H. K. Kitchens, Paul Sizemore, John H. Wilson; CRAIGHEAD-POINSETT—J. B. Elders, J. C. Faris, E. J. Horner, P. W. Lutterloh, J. H. McCurry, L. H. McDaniel, C. H. Reagan, Joe Verser; CRAWFORD—S. D. Kirkland, O. J. Kirksey; CRITTENDEN—Ralph Hamilton, L. C. McVay; CROSS—Thos. Wilson; DALLAS—W. S. Ellis; DESHA—Julius Hellums, Chas. G. Leverett, H. T. Smith; Geo. M. Webb; DREW—Van C. Binns, James B. Holder, Lewis Hyatt, R. F. Hyatt, Jr., J. P. Price; FAULKNER—C. A. Archer, Jr., C. H. Dickerson, Jr., J. H. Downs, N. E. Fraser, Fred Gordy, Jr., J. S. Lieblong, I. N. McCollum, John W. Sneed, R. L. Taylor; FRANKLIN—C. C. Long; GARLAND—Frank M. Adams, L. N. Bollmeier, E. R. Browning, N. B. Burch, Frank M. Burton, B. F. Casada, H. Clay Chenault, G. C. Coffey, R. L. Daniel, Geo. B. Fletcher, Dorothy Goetze, W. A. Goodrum, G. M. Hogaboom, H. G. Jackson, J. S. Kootsey, D. C. Lee, W. R. Lee, Chas. H. Lutterloh, Louie G. Martin, Allyn R. Power, Lon E. Reed, H. N. Rogers, E. D. Rowland, F. E. Rushing, R. E. Smallwood, Euclid M. Smith, H. King Wade, H. King Wade, Jr., J. S. Wilkins, H. K. Wright; GRANT—Miles F. Kelly; HEMPSTEAD—G. E. Cannon, L. M. Lile, Jim McKenzie, W. L. Sims, Don Smith, E. H. Wilkes, Geo. H. Wright; HOT SPRING—W. F. Barrier, R. V. McCray, C. F. Peters; HOWARD-PIKE—M. D. Duncan, W. J.



Jones, W. H. Toland; INDEPENDENCE—J. Claude Barnett, S. W. Chambers, C. A. Churchill, L. T. Evans, Paul Gray, R. C. Hooper, O. J. T. Johnston, J. T. Matthews, J. J. Monfort, J. L. Weathers, Finis Q. Wyatt; JACKSON—A. M. Elton, C. R. Gray, Jabez F. Jackson, K. K. Kimberlin, R. O. Norris, T. E. Williams; JEFFERSON—Carl H. Adams, C. W. Anderson, C. B. Capel, H. A. Causey, R. D. Dickins, Fred Hames, L. K. Hundley, J. S. Jenkins, W. T. Lowe, R. E. Maynard, Virgil L. Payne, Chas. W. Reid, Allen R. Russell, Geo. B. Talbot, R. P. Woods; JOHN-SON—Geo. R. Hardgrave, Earle H. Hunt, James M. Kolb, W. R. Scarborough, Guy Shrigley, G. R. Siegel; LEE—C. W. Chaffin; LINCOLN—C. W. Dixon; LITTLE RIVER—Elmer L. Davis, Joe G. Shelton, Jr.; LOGAN—A. B. Dickey, I. H. Jewell, S. P. McConnell, J. D. Riley; LO-NOKE—S. S. Beaty, S. A. Southall, A. C. Watson, Sr.; MILLER—C. H. Frank, Louis P. Good, W. B. Harrell, R. K. Harrison, R. R. Kirkpatrick, L. J. Kosminsky, H. E. Murry, W. Decker Smith; C. C. Stuart, J. Brooks Tate, Gerald H. Teasley;

MISSISSIPPI—Gean S. Atkinson, J. A. Martin; MONROE—E. D. McKnight; NEVADA—A. S. Buchanan, L. J. Harrell, J. B. Hesterly; OUA-CHITA—E. J. Byrd, Perry Dalton, J. B. Jameson, R. C. Kennerly, W. C. Magness, J. P. McAlister, B. V. Powell, R. B. Robins, R. R. Robins, R. E. Schirmer; PHILLIPS—J. W. Butts, J. B. Terry; POLK—F. A. Lee; POPE-YELL—Ellis Gardner, J. K. Grace, Robert Hood, Jonathan Hoyt, Roy I. Millard, J. M. Stanford, A. B. Tate, Brooks R. Teeter; PRAIRIE—W. H. Crockett, J. C. Gilliam, William Parker; PULASKI—Hoyt R. Allen, P. J. Almaden, P. R. Anderson, D. H. Autry, Jeff Banks, R. W. Beck, Byron Bennett, C. M. Brooks, Martha M. Brown, T. D. Brown, R. J. Calcote, F. Walter Carruthers, Jessie Cavener, C. R. Chestnutt, C. R. Chestnutt, Jr., Hoyt Choate, A. C. Clark, Louis A. Cohen, J. N. Compton, W. G. Cooper, Jr., Ellis P. Cope, F. A. Corn, K. W. Cosgrove, J. B. Crawford, S. R. Crawford, Phillip T. Cullen, R. F. Darnall, Gilbert O. Dean, Eva F. Dodge, J. K. Donaldson, E. J. Easley, R. M. Eubanks, Theo. Freedman, Doyle W. Furmer, Paul M. Fulmer, S. C. Fulmer, Ellery C. Gay, Vida H. Gordon, Ed Gray, John T. Gray, Oscar Gray, W. B. Grayson, J. E. Greutter, W. L. Fulton, R. H. Hall, Daniel R. Hardeman, Fred W. Harris, C. K. Hayes, J. Donald Hayes, J. Harry Hayes, Chas. T. Henry, John T. Herron, Henry G. Hollenberg, J. P.

Jernigan, Glenn Johnson, H. Fay H. Jones, James E. Jones, Robert D. Jones, D. W. Dykstra, A. C. Kolb, B. T. Kolb, M. J. Kilbury, W. A. Lamb, W. C. Langston, Ralph A. Law, M. G. Lawson, Geo. V. Lewis, J. S. Levy, V. E. Lyons, Paul L. Mahoney, M. E. McCaskill, M. R. McCaskill, M. D. McClain, W. M. McRae, Ben D. Means, O. C. Melson, Vern E. Morgan, Pay Murphey, Vernon Newman, Chas. E. Oates, Gordon P. Oates, John Parsons, W. R. Parsons, Sam Phillips, M. D. Prickett, Grady W. Reagan, L. D. Reagan, James Reaves, C. C. Reed, Jr., E. F. Reed, B. A. Rhinehart, D. A. Rhinehart, W. R. Richardson, N. W. Riegler, N. W. Riegler, Jr., John N. Roberts, Clyde D. Rodgers, Carl A. Rosenbaum, R. W. Ross, T. T. Ross, R. E. Rowen, R. E. Rowland, W. L. Sadler, John M. Samuel, Joe H. Sanderlin, S. M. Sanford, J. F. Scarborough, W. P. Scarlett, W. J. Schwarz, W. D. Sessoms, W. F. Shearer, A. C. Shipp, Joe F. Shuffield, James E. Smith, John McC. Smith, Randolph T. Smith, W. A. Snodgrass, G. R. Steinkamp, H. S. Stern, A. W. Strauss, J. A. Summers, D. M. Switzer, D. M. Switzer, Jr., P. E. Thomas, Geo. D. Thompson, Chas. Wallis, J. R. Warden, A. M. Washburn, J. D. Watkins, Jr., Robert Watson, V. T. Webb, W. H. Weese, J. B. Wells, Chas. P. Wickard.

RANDOLPH—M. A. Baltz, J. O. Loftis, J. R. Loftis; ST. FRANCIS—C. N. Bogart, J. O. Rush; SALINE—C. W. Jones; SEARCY—Sam G. Daniel, H. J. Hall; SEBASTAIN—W. F. Adams, J. W. Amis, W. R. Brooksher, Chas. T. Chamberlain, A. S. J. Clarke, Stanley M. Gates, D. W. Goldstein, C. W. Hall, L. Murphey Henry, Louise M. Henry, M. B. Hoge, Chas. S. Holt, I. F. Jones, A. S. Koenig, Ralph G. Kramer, Fred H. Krock, Art B. Martin, E. C. Moulton, F. E. Shearer, S. P. Stubbs, Jr., J. K. Thompson, Carl Wilson, W. M. Woods; SEVIER—C. A. Archer, R. C. Dickinson, C. C. Hanchey, C. E. Kitchens, M. L. Norwood; UNION—O. L. Atkinson, A. D. Cathey, J. F. Clark, C. E. Kennedy, H. J. Mayfield, B. L. Moore, E. J. Munn, G. D. Murphy, Jr., P. H. Muse, J. H. Pinson, W. S. Riley, M. V. Russell, J. K. Sheppard, J. B. Wharton, D. E. White; WASHINGTON—W. J. Butt, W. A. Fowler, A. A. Gilbert, A. H. Hathcock, S. F. Hoge, R. H. Huntington, Ruth Ellis Lesh, W. H. Mock, Fred W. Ogden; WHITE—S. J. Allbright, M. C. Hawkins, Jr.

Members and Visiting Physicians—456; Other Visitors—36; Exhibitors—56. Total—548.



## WOMAN'S AUXILIARY NEWS



—Hilborn's Studio

**MRS. W. J. HUNT**

Warren

**President, Woman's Auxiliary to the Arkansas  
Medical Society, 1947-1948**

Activities of the Sebastian County Medical Society Auxiliary for the last year were reviewed by Mrs. W. F. Rose, publicity chairman, May 12th at the last meeting before suspension for the summer.

They included two public health relations programs presented in conjunction with Parent-Teachers Association meetings at Rogers and Peabody schools; a contribution to the Ilse F. Oates Medical Student Loan fund; and to the Erle Chambers Memorial fund for the purchase of books for patients at the Arkansas and Wildcat Tuberculosis sanatoriums.

The Auxiliary also presented subscriptions of the medical society's official magazine, *Hygeia*, to the Girls' Club, Young Woman's Christian Association, Carnegie Library, Tilles Children's Home and the Arkansas and Wildcat sanatoriums; and sent delegates to the state convention in Little Rock in April.

After committee chairmen gave their reports, Mrs. F. H. Krock, president, expressed appreciation of co-operation of the membership during

her administration and installed the officers for next year.

They are Mrs. Hardy H. Smith, president; Mrs. W. L. Shippey, secretary; Mrs. B. L. Ware, treasurer. The outgoing president automatically becomes vice president.

Committee appointments were announced by Mrs. Smith as follows: Cancer Control, Mrs. W. R. Brooksher, chairman; Courtesy, Mrs. M. E. Foster; Health, Mrs. J. E. Johnson; Hygeia, Mrs. Kenneth Thompson; Legislation, Mrs. I. F. Jones; Membership, Mrs. D. W. Goldstein; Program, Mrs. S. J. Wolferman; Public Relations, Mrs. J. S. Southard; Telephone, Mrs. Walter Eberle; and Publicity, Mrs. W. F. Rose, who was appointed to the office for the fourteenth consecutive year.

Highlights of the state convention were given by Mrs. Goldstein. Plans for the Auxiliary's party, May 21, at the country home of Dr. and Mrs. A. F. Hoge, at which the women will entertain in honor of their husbands, were discussed. The committee on arrangements is made up of Mrs. Hoge, Mrs. Eberle, Mrs. A. A. Blair and Mrs. Wolferson.

Hostesses for the luncheon meeting were Mrs. Jim Johnson and Mrs. Stanley Gates.

Members present were Mrs. Krock, Mrs. Shippey, Mrs. S. P. Stubbs, Sr., Mrs. Eberle, Mrs. Hoge, Mrs. Hugh Johnson, Mrs. Wolferman, Mrs. Brooksher, Mrs. Smith, Mrs. Goldstein, Mrs. Blair, Mrs. A. S. Koenig, Mrs. Thompson, Mrs. Rose and the hostesses.

Mrs. W. F. Rose,  
Publicity Chairman, Sebastian County  
Medical Society Auxiliary.

The spacious plantation home of Mr. and Mrs. Hiram Norcross near Tyronza, was the setting for a lovely informal tea May 1st from 3 to 5, when members of the Medical Auxiliary of the District Medical Society, were their guests.

Greeting the guests, wives of the doctors who were present for the District Medical Society from five Northeast Arkansas counties, and a group of doctors from Memphis, were Mr. and Mrs. Norcross, Mrs. E. H. McDaniel and Mrs. L. H. McDaniel.

Vases and bowls of rare china, pottery, and glassware, that Mr. and Mrs. Norcross had gathered on their numerous trips around the



world, held attractive arrangements of red and white azaleas gathered from the Norcross formal flower gardens.

Following talks by Dr. Charles C. King of Memphis, president of the American Cancer Society for Memphis and Shelby County, and Dr. Marshall Wingfield, pastor of the First Congregational Church of Memphis, the guests enjoyed viewing the various collections of the Norcross' which includes authentic prints, books, glassware, paintings, and especially the collection of "Staffordshire plates" collected by Mrs. Norcross.

Presiding at the dining table, overlaid with an imported cloth, were Mrs. E. C. McDaniel and Mrs. L. H. McDaniel, wives of veteran Tyronza doctors. An exquisite cutglass bowl held an arrangement of the red and white azaleas. Delicious canapes, and coffee were served.

Attending from Marked Tree were: Mrs. C. E. Reagan, Mrs. J. O. Pierce, Mrs. D. A. Dickerson, Mrs. John Brunner, Mrs. J. L. Baird, and Mrs. Grady Hancock, formerly of Marked Tree.

## RESOLUTION

Whereas the Woman's Auxiliary to the Pulaski County Medical Society has entertained the Woman's Auxiliary to the Arkansas Medical Society in convention assembled with two beautifully appointed luncheons, buffet dinner, flowers, corsages, and so many courtesies, and

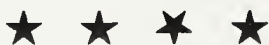
Whereas the president and secretary of the Arkansas Medical Society, Dr. H. King Wade, and Dr. W. R. Brooksher, have cooperated with us and helped us in all our efforts, and

Whereas the newspapers and the hotel management have shown us unusual courtesies, therefore be it

Resolved, That we, the Woman's Auxiliary to the Arkansas Medical Society, do extend to them our sincere thanks and appreciation.

Respectfully submitted,

Mrs. M. C. Hawkins, Jr.,  
Mrs. R. B. Robins,  
Mrs. Julius Hellums,  
Resolutions Committee.



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# The JOURNAL OF THE ARKANSAS MEDICAL SOCIETY

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No. 2

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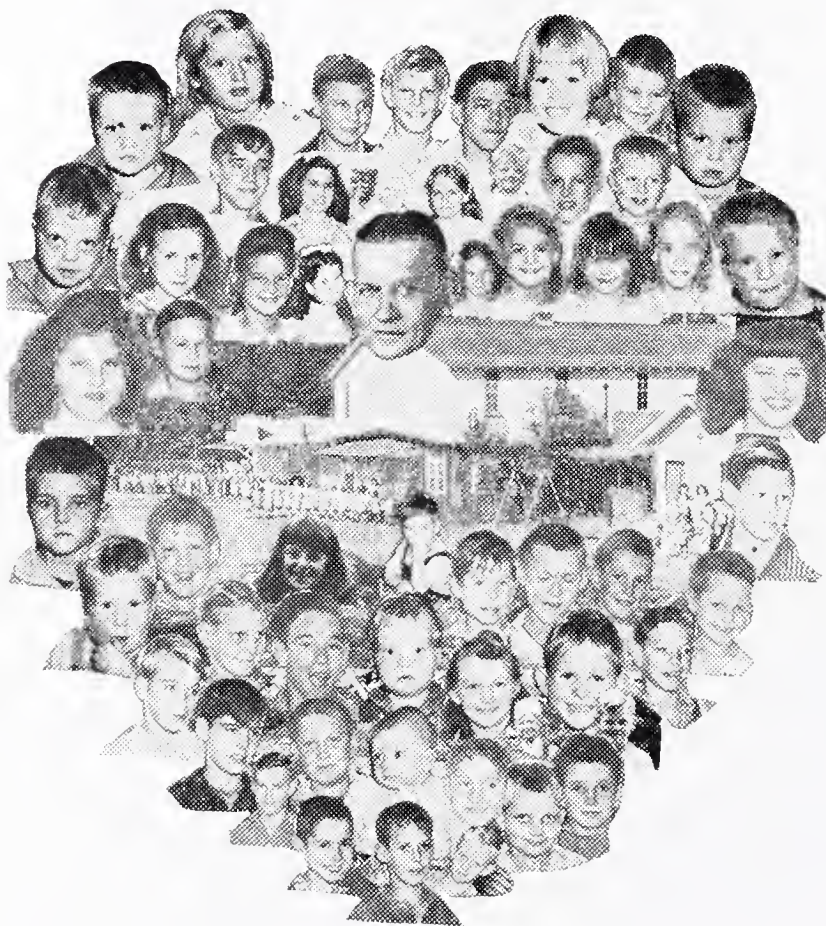
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# The JOURNAL

## OF THE ARKANSAS MEDICAL SOCIETY

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LITTLE ROCK, ARKANSAS, JULY, 1947

No. 2

### NEW DRUGS IN THE TREATMENT OF MALARIA\*

HENRY PACKER, M. D.,  
Memphis, Tenn.

The physician who is called upon to treat malaria today is far better equipped than he or his predecessors were at any previous time in the history of medicine. This is largely due to the extensive, coordinated malaria research program which was carried on during World War II, following the loss of our source of supply of quinine from the Dutch East Indies. During the course of these studies, over 14,000 drugs were tested for their antimalarial activity. The disaster of losing the source of quinine was eventually turned into a benefit to mankind, for drugs have been discovered which far surpass quinine in antimalarial effect. Furthermore, this research has not only provided the physician with new drugs and a more rational basis for the therapy of malaria than has hitherto existed but could well be used as a pattern for systematic research in the chemotherapy of other infections. In this paper an attempt will be made to summarize briefly the results of this research, with special emphasis upon aspects which are of practical value to the physician who is called upon to treat cases of this disease. Problems relating to the therapy of vivax and falciparum infections only will be considered, since malarial infection due to *Plasmodium malariae* does not constitute an important problem in this country, and responds in general to chemotherapy which is effective against the other two species.

In any consideration of the treatment of malaria it is necessary to recognize at the outset that one is dealing with a very complex etiological agent, far more so than in the case of any bac-

terial infection. This agent goes through a complicated cycle of development in the human host. Some of the stages in this cycle are responsible for the clinical symptoms observed, others play a role in the transmission of the disease, although they produce no symptoms of themselves. Some stages remain hidden in tissue cells for long periods of time without producing symptoms, only to manifest themselves subsequently in the form of clinical relapses. No known drug acts with equal effectiveness upon all these stages. Drugs which are highly effective upon one stage of the parasite may be completely ineffective upon other stages. Unfortunately, some of the stages which are resistant to therapy play an important role in symptomatology. Furthermore, certain drugs are more effective in one species than in another; for example, the arsenical drugs act upon vivax malaria, but not upon falciparum malaria, while sulfonamide drugs are more effective in falciparum than in vivax malaria. Also, different strains of the same species of malaria may show considerable variation with regard to the amount of a specific drug required for effective chemotherapy. These factors complicate drug therapy of the malarias and necessitate a clear understanding of the cycle of malaria in the human host and of the stage in the cycle affected by a particular drug. First consideration will therefore be given to the action of drugs upon the three stages of the parasite which are believed to exist in man; namely, the sporozoites, the intermediate tissue forms, and the erythrocytic forms found in the blood.

1. **The Sporozoites.**—This stage of the parasite is injected by the infected mosquito into man. No symptoms are produced by these forms; in fact, none are evident for approximately ten days or more subsequent to infection. A drug which would be effective in destroying these forms would be considered as a true "prophylactic"\* and would represent the ideal drug from many standpoints. Unfortunately, there is only one drug which has given any suggestion of being effective against this stage of the cycle; namely, plasmochin (pamaquine U.S.P.). James<sup>1</sup>, in studies

\*Read before 71st Annual Session, Arkansas Medical Society, Little Rock, April 19, 1947.

\*A "prophylactic" drug is now defined as one which acts on any pre-erythrocytic stage of the parasite in the human host.



carried out in England about fifteen years ago, showed that the administration of plasmochin for eight days in high dosage, beginning the day before mosquito inoculation, would prevent vivax and falciparum infections from developing in 100 per cent of cases. This work subsequently received little attention until World War II, when our malaria research unit in Memphis undertook further studies of this drug in the hope of obtaining a lead for further investigations in the field of prophylactic drugs. As a result of these studies, the work of James was confirmed and elaborated upon<sup>2</sup>, showing beyond doubt that plasmochine possessed a type of activity not possessed by any other antimalarial drug known at that time. It was observed that plasmochin, in dosage comparable to that employed by James, acted as a prophylactic of falciparum infections and prevented the primary attack of vivax malaria, although it failed to prevent subsequent clinical activity, six to eight months later, of the latter species. The impression was gained that the effect of plasmochine was not upon the sporozoite stage as claimed by James, but upon a subsequent stage of development of the parasite in the tissues. In view of this, further consideration will be given to plasmochin in the following section dealing with the intermediate tissue forms.

**2. The Intermediate Tissue Forms.** — These represent the stages into which sporozoites develop, and from which the erythrocytic blood forms which produce symptoms arise. Such tissue forms have never been demonstrated in man, but have been demonstrated by James and Tate<sup>3</sup> in bird malaria, and it is presumed that they also exist in man, as no erythrocytic forms can be demonstrated for at least seven to nine days after the injection of sporozoites, and sub-inoculations of blood are not successful during this period. These forms have been referred to as "exoerythrocytic," since they reside in cells other than erythrocytes. They are believed to be responsible for the relapses which occur in vivax infections. The latter represent one of the most important problems of present-day malaria in men returning from the Southwest Pacific, as the species of vivax malaria acquired there is notorious for its frequency of relapses, which occur at short intervals and are not prevented by any commonly used regimen of treatment.

As a result of this problem, and of the renewed interest in plasmochin resulting from the studies mentioned above, a reinvestigation was made of work carried out by Sinton and Bird in 1928<sup>4</sup>, in which it was claimed that a combination of plas-

mochin and quinine given for three to four weeks reduced the relapses of vivax malaria to a marked degree. The outcome of these recent studies<sup>5</sup> has been to show that when quinine (two grams daily) and plasmochin (thirty milligrams of base daily) are given concurrently for fourteen days, the relapses of vivax infections (Southwest Pacific strains) are reduced from 85 per to 4 per cent. This is the only combination of drugs which has been demonstrated to influence the relapses of vivax malaria, thereby producing "radical cure." Used separately, these drugs do not produce this effect, nor can it be produced by any single known drug at present. The nature of the chemical product of this combination deserves further study in view of the unique effect produced. This is nevertheless heroic treatment and requires hospitalization. Adequate supervision and an understanding of the toxic symptoms which may be encountered are essential for safety.

Recently a new drug has been developed, which has a chemical structure similar to that of plasmochin (an 8-aminoquinoline), but is approximately half as toxic in man. This drug, which was number 13,276 on the list of drugs studied, has been named pentaquine<sup>6</sup>. Given over a period of two weeks in daily dosage of 60 mgs. base, combined with 2 gms. quinine daily it will eradicate the relapses of vivax malaria in a manner comparable to when 90 mgs. of plasmochin is employed. While the toxicity of this new drug is less than that of plasmochin, it is by no means inconsiderable, and patients receiving this drug should preferably be hospitalized. An alternative method, less hazardous to the patient, for dealing with the relapses of vivax malaria will be discussed later.

The difference between the action of plasmochin given alone and when given in combination with quinine has an implication with regard to the nature of the so-called "exoerythrocytic" stage, which is affected in both instances. Given alone, as in our experiments, plasmochin prevented the primary attacks of vivax malaria, but not the relapses six to eight months later. On the other hand given with quinine, plasmochin proved highly effective in eradicating the relapses of vivax malaria. Since the exoerythrocytic forms responsible for relapses do not originate from erythrocytic forms (blood inoculations to paretics do not produce relapses), it may be concluded that two separate and distinct exoerythrocytic phases possibly existing in different host cells) spring simultaneously from the injected sporozoites. One of these phases produces the primary wave of parasitemia and fever and is susceptible to plas-



mochin, while the other is destined to remain latent in its host tissue cell until some unexplained biological factor stimulates it to activity to produce the relapse. This latter phase is refractory to plasmochin alone but is susceptible to the plasmochin-quinine combination. This hypothesis appears to be reasonable when the results of the above experiments are brought together and viewed in terms of specific chemotherapeutic effects. This concept differs from Davey's concept<sup>7</sup> of primary and secondary exoerythrocytic stages responsible for primary attacks and relapses respectively, in that he postulates that these stages develop in sequence; whereas we believe that they originate simultaneously and enter different host cells which provide a selective protection against specific drugs. If these exoerythrocytic stages developed in sequence, drugs effective against the earlier stage would prevent the development of the second stage. This view is not consistent with the results mentioned above.

While research on plasmochin was being pursued in this country, intensive research by British workers brought to light a new drug, paludrine, which subsequently proved to have a prophylactic effect similar to that of plasmochin against vivax and falciparum infections<sup>8</sup>. As in the case of plasmochin, a complete prophylactic effect against falciparum infections occurred, but relapses of vivax malaria were not prevented, although the primary attack did not occur. Most remarkable was the small amount of drug required to produce this effect, in contrast to the toxic levels of plasmochin required for a similar effect. A single tablet of paludrine (100 mgs. of salt) given on any day between the second and fifth day following a heavy mosquito inoculation had the same prophylactic effect as an eight-day high dosage regimen of plasmochin. Given in combination with quinine, however, the effect on relapses observed with the quinine-plasmochin regimen does not occur, indicating the highly specific nature of the latter combination. In any event paludrine is an important addition to the category of drugs producing an effect on exoerythrocytic stages of the parasite.

Attention should be called at this point to the increase in toxicity which results when plasmochin is administered concurrently with atabrine. This is the result of a peculiar "potentiating" action<sup>9</sup> which atabrine has upon plasmochin which produces a blood concentration of the latter drug which is many times that observed when plasmochin is given alone. For example, in a series of patients who were given 30 mgs. of plasmochin

base daily, the mean plasma concentration of plasmochin was approximately 30 micrograms per litre. When, to the same amount of plasmochin, 0.3 grams of atabrine was added daily, the plasma concentration of plasmochin reached an average level of 300 micrograms per litre, with a proportional increase in toxic manifestations. This explains the toxic manifestations observed during the early World War II Army regimen of treatment which employed plasmochin as terminal treatment following the administration of quinine and atabrine. Due to its slow excretion, atabrine still remained at a significant plasma level after its administration was discontinued, and exerted the potentiating action described above.

**3. The Erythrocytic Blood Forms Responsible for Clinical Manifestations.**—The term "suppression" is now being applied to any effect upon these erythrocytic forms, whether it be in terminating the acute clinical attack or in preventing clinical manifestations by periodic administration of a drug in anticipation of infection. For purposes of clarity, the terms "suppression of the clinical attack" and "field-type suppression" will be applied to these respective effects.

**A. Suppression of the Clinical Attack.**—For purposes of chronological reference, one might refer to three eras of drug therapy in malaria, the quinine era, the atabrine era, and the present (and future) era of new drugs, such as the 4-aminoquinolines and paludrine. The supremacy which quinine enjoyed in the field of malaria therapy endured well into World War II. This is the strongest tribute which can be given to this drug, in view of the fact that atabrine had already been upon the scene for ten years, and the League of Nations Commission as long ago as 1933<sup>10</sup> had stated that in spite of the wide-spread use of cinchona alkaloids for over 300 years, there was no consensus as to optimum dosage and mode of action. As will be pointed out later, persistence in the use of quinine after the introduction of atabrine was due to lack of understanding of the proper use of the latter drug rather than to any inherent superiority of quinine.

The conflicting reports regarding the optimum dosage of quinine, and the regimen of choice, which fill the literature of the past, are due to the empirical methods of treatment formerly employed. One of the important contributions of the wartime malaria research program has been to replace these empirical methods of the past by a more quantitative approach, relating the antimalarial activity of drugs to their concentra-



tion in the blood rather than to oral dosage. This represents an attempt to apply to malaria the same type of quantitative approach which permitted of sound antibacterial therapy with the sulfonamide drugs.

In studies carried out upon quinine early in the war, an attempt was made to determine the minimum plasma concentration which would produce a remission of parasites and fever. Plasma concentrations of 5 milligrams per litre were needed to produce such an effect upon the strain of vivax (McCoy) employed. This level could usually be achieved by the administration of from 15 to 20 milligrams per kilogram of body weight, or approximately one to one and one-half grams daily to a seventy kilogram patient. However, considerable variation was encountered in the plasma levels achieved in different individuals receiving the same dose of drug. For example, in a group of patients receiving 0.3 grams of quinine daily, the mean plasma concentration varied from 2 to 8.9 milligrams per litre<sup>11</sup>. This indicates the hazard of relating antimalarial effect solely to oral dosage. Some strains of vivax malaria require more quinine for control than do others, while falciparum strains in general require a higher plasma concentration for control than is required by vivax malaria. A safer minimum dosage to employ would therefore be two grams daily for vivax infections and three grams daily for falciparum infections, with checking of plasma concentrations to insure that an adequate level is being achieved.

Quinine is rapidly absorbed, but is also rapidly degraded and excreted, so that a rapid fall in plasma concentration occurs when dosage is discontinued. Therein lies its main inferiority to drugs like atabrine, which as a result of tissue localization and slow degradation and excretion maintain blood concentrations high enough to affect erythrocytic forms for considerable periods of time following administrations. Negligible quantities of quinine can be detected in the plasma twenty-four hours after administration, whereas evidence of atabrine may be detected for weeks or even months. The advantages of the latter drug from a suppressive standpoint are evident.

The loss of the source of supply of quinine from the Dutch East Indies early in the war made observations on quinine of academic rather than practical interest, although quinine continued to be used as a standard for the evaluation of other antimalarial drugs. In the summer and fall of 1942 there appeared to be no suitable drug available in amounts sufficient to conduct large scale

military operations in hyperendemic areas. Atabrine was the only drug available, but was in low repute as a result of reports coming in from the services regarding its shortcomings. Since it was the only drug available, however, the Board for the Coordination of Malarial Studies decided to reinvestigate this drug so that it might be used to best advantage. Prior to this time, atabrine had not even been completely synthesized in this country, but had been sent here in partially synthesized form from Germany, so that a problem of complete synthesis as well as evaluation presented itself. The results of the studies which were undertaken probably contributed as much to the success of the campaign in the Southwest Pacific as any other single factor. Men ill with malaria cannot engage in combat. The proper use of atabrine in field-type suppression of malaria was so effective, once its potentialities were realized, that the disease was reduced from a "number one" problem to a minor one. Certain aspects of the research which produced this striking change in the picture deserve mention here.

As in the case of quinine studies, an attempt was made to relate the antimalarial activity of atabrine to the concentration of this drug in plasma. Fortunately a method for doing this was developed by Brodie<sup>12</sup> in 1943 and applied to this problem. It was thus possible to determine the relationship of oral dosage and other routes of administration to plasma concentrations, and of plasma concentrations to anti-malarial effect. As has been pointed out by Shannon<sup>13</sup>, the plasma concentration of atabrine depends upon the dosage employed, the route of administration, and the operation of the processes of absorption, distribution, degradation, and excretion. Studies of the distribution of atabrine revealed why previous regimens of therapy had proved so inadequate. A major portion of administered atabrine is at first localized in tissues and organs of the body, leaving little in the plasma to exert a therapeutic effect. The dosage formerly employed, one-tenth gram three times a day, was found to be inadequate, as most of the early medication localized in the tissues and produced no effect upon the erythrocytic forms which produce symptoms. For example, in the case of standardized strains of vivax and falciparum malaria employed in evaluation studies in this country, it was observed that the minimum effective plasma concentrations of atabrine required for the control of these infections were 30 and 50 micrograms per litre, respectively. When the above regimen of treatment was employed in a series of test patients, the minimum plasma con-



centration effective against vivax malaria was not reached until the second day of treatment, whereas that required for falciparum malaria was not reached until the fifth day<sup>14</sup>. This explains the poor results achieved with such dosage, particularly in falciparum infections. For this reason large initial doses ("priming doses") must be given, preferably two-tenths gram every six hours for five doses, followed by one-tenth gram three times a day for six days. Extremely high plasma concentrations can be achieved by intramuscular administration of two-tenths gram in each buttock; this produces a plasma concentration of over 100 micrograms per liter within fifteen minutes. This is the method of choice in treating comatose cases or those who cannot tolerate the drug by mouth due to vomiting. This method should replace the older procedure of giving quinine intravenously, as the latter is associated with great risk, and possesses no advantages.

This knowledge of the potentialities of atabrine must be tempered, however, by a recognition of certain toxic properties of this drug. The yellow staining of the skin is well known. Gastro-intestinal irritation may occur, especially if the drug is given before meals. In certain predisposed individuals, cerebral irritation may occur which may reach the proportions of a psychosis. In patients with organic brain deterioration due to syphilis who are being treated with malaria, the incidence of convulsive seizures is higher when atabrine is used than when other drugs are employed for terminating the malaria<sup>15</sup>. Dermatological manifestations taking the form of an atypical lichen planus have also been reported in troops under field type suppression<sup>16</sup>. These toxic effects indicate that even atabrine has its drawbacks, and is not the ideal drug one might wish for.

Fortunately, new drugs have appeared upon the horizon as a result of the intensive wartime research program, and it is quite conceivable that within a few years atabrine will become an obsolete drug. In this country the most promising of the newer drugs are the members of the 4-aminoquinoline series. One of these, chloroquine<sup>17</sup> (aralen) (SN 7618) will probably be widely used in the future. When the rate of disappearance of parasites from the blood stream under the influence of quinine, atabrine, and chloroquine is compared, it is observed that quinine runs a poor third, trailing atabrine by 24 hours in clearance results, whereas chloroquine is superior to atabrine in parasite clearance and is effective in shorter courses of treatment. A recommended course of treatment with chloroquine consists of

2.5 grams of diphosphate given over a period of 3 days, as follows:

First day .....	8 a.m.	1.0 grams.
	4 p.m.	0.5 grams.
Second day .....	8 a.m.	0.5 grams.
Third day .....	8 a.m.	0.5 grams.

Total ..... 2.05 grams.

Similar total dosage divided over a 24-hour period has also been employed without significant toxic manifestations. As in the case of atabrine, a priming dose should be administered initially, in order to achieve a high plasma concentration rapidly.

Chloroquine does not produce the staining of the skin which atabrine produces. It is well tolerated during the acute attack and controls symptoms so promptly that patients who have taken other anti-malarials such as quinine or atabrine prefer the new drug. Patients who cannot tolerate atabrine will usually tolerate chloroquine well. Toxic symptoms occur less frequently than with atabrine. Of these the commonest are mild and transient headache, pruritis, gastro-intestinal symptoms, and blurring of vision.

Chloroquine is similar to atabrine in that it does not prevent the relapses of vivax malaria. However, the interval between relapses is longer and the number of relapses fewer than when quinine or atabrine are employed. Chloroquine suppresses the acute attack and completely cures falciparum infections. The effective plasma concentration for chloroquine is considerably less than that required for atabrine, and in standardized infections it is approximately three times as active as atabrine.

Another product of wartime malaria research is a British drug named paludrine<sup>8</sup>. This drug is of interest in that it has a chemical structure entirely different from that of the other drugs mentioned above. Of particular interest is the evidence obtained by British investigators that this drug acts as a true prophylactic against falciparum malaria and is also effective against the gametocytes of this species. One of the shortcomings of drugs employed in the past, such as quinine and atabrine, is that while they control the clinical symptoms of falciparum malaria adequately, they do not affect the gametocytes of this species, and therefore the patient continues to be infectious to mosquitoes. On our research service we have been able to infect mosquitos from such patients for weeks after the completion of a full course of atabrine, and during periods when the patient was completely free of fever or symptoms of malaria. The propagation



of malaria is favored by such circumstances. Paludrine therefore appears to be unique in this property of being highly active against the sexual as well as asexual forms of *falciparum* malaria, a property not possessed by any other known drug. Its action against exoerythrocytic stages has already been discussed.

Furthermore, the difference between the effective therapeutic dose and the toxic dose of paludrine is much greater than for any other known drug, thus providing a considerable margin of safety. In some respects paludrine appears to be slightly inferior to chloroquine, namely, in the speed with which the blood stream is cleared of malaria parasites and in the duration of treatment required for such clearance. Whether these deficiencies can be overcome or whether they are of serious significance will be determined by further studies. Such studies are being carried out in various parts of the world to determine the place which this drug shall occupy among our anti-malarial weapons. Even if paludrine turns out to be the most potent drug we possess, as claimed by British workers, it still fails in one respect to achieve the status of the ideal anti-malarial drug, namely in its failure to prevent the relapses of vivax malaria.

**B. Field-Type Suppression.**—What has been said with regard to suppression of the clinical attack also applies to field-type suppression. In field-type suppression, as in the suppression of the acute clinical attack, chloroquine and paludrine will undoubtedly supplant atabrine. The latter drugs have the advantage over atabrine in that they are effective when given once a week, whereas atabrine must be given almost daily<sup>18</sup>. The absence of the yellow staining of the skin produced by long periods of administration of atabrine is also in favor of the newer drugs. We have been particularly interested, during the past year in determining the minimum amounts of the newer drugs which will suppress our strains of vivax and *falciparum* infections. In our experiments we allow heavily infected mosquitoes to feed on patients on three alternate days during the first week of observation, to simulate natural infection in a hyperendemic area. Patients receive a single dose of drug weekly, starting the day before the first mosquito inoculation. Preliminary experiments<sup>19</sup> indicate that against the standard vivax infection employed, paludrine was effective in field-type suppression when a weekly dose (0.087 grams base) one-third as great as that required in the case of chloroquine (0.25 grams base) was employed. Slightly larger dos-

age was required against *falciparum* infection. The effectiveness of paludrine at such low dosage may be of great value in mass suppression in hyperendemic areas, as under such circumstances the toxic manifestations encountered over long periods of administration are of prime importance. Toxic effects have not been reported with the low dosages mentioned. Furthermore, paludrine exerts a complete prophylactic action against *falciparum* infections and a partial prophylactic action against vivax infections, whereas the action of chloroquine is purely upon erythrocytic stages. For this reason it is likely that paludrine will prove to be the drug of choice in field-type suppression of the future.

While field-type suppression was developed primarily to maintain the efficiency of troops in hyperendemic areas, it may also be applied to troublesome relapsing cases of vivax malaria. During the past year we have observed a number of cases of relapsing vivax malaria acquired in the Southwest Pacific in which repeated clinical activity occurred, sometimes as frequently as two weeks apart, and in which atabrine was either ineffective or could not be tolerated. These men were given one tablet of chloroquine containing 0.25 grams of base once a week. Over a period of many months these patients have had no further clinical activity and have been able to accept employment, which had heretofore been impossible. Such a regimen of treatment may be continued for a year or more until the infection burns itself out, as no harm is reported from such prolonged courses of treatment. This form of treatment is a safer alternative to the quinine-plasmochin course mentioned above, which requires hospitalization and careful observation for at least two weeks.

In conclusion, it is evident that great strides have been made in the field of malaria chemotherapy in recent years under the pressure of the urgent war-time need for knowledge in this field. Even with the passing of the emergency period this knowledge will continue to be a valuable asset to the practicing physician. Physicians will be called upon to treat relapsing vivax malaria acquired in the Southwest Pacific and in the Mediterranean areas for some time to come, in addition to indigenous cases. Of the 60,000 cases of malaria reported in the U. S. A. by State Health Officers in 1945, approximately 20,000 were contracted outside the U. S. A. These latter represent infections acquired during military service for the most part. It has been demonstrated that malarial infections, acquired in for-



eign countries, which relapse after return to the U. S. A. are infective to our native American anopheline mosquitoes. Under these circumstances it is conceivable that malaria may again appear in some areas which have been malaria-free. In any case it behooves the physician to keep in mind the possibility of malarial infection in those who have recently traveled abroad.

Continued emphasis upon mosquito control as the fundamental malaria control procedure is therefore still needed. Where such control measures break down the physicians must be prepared to treat the resulting consequences of malaria transmission with the best drugs available. In this respect he is better equipped than at any previous period in the history of medicine.

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## THE FUNDAMENTAL MOTIVATIONS OF THE AMERICAN MEDICAL ASSOCIATION\*

The American Medical Association was founded in Philadelphia in 1847; the assemblage which initiated the organization met in New York City in 1846. The ideals and motivations that inspired its founders were of the highest. As the years have passed, every aspect of medicine and its practice has received attention by the important committees and councils of the association. The contrast between medicine as it was studied and practiced in 1847 with medical education and medical practice as they prevail today indicates the vast progress that has been made. Medicine as a science made magnificent gains in the century. Indeed medicine benefited tremendously by invention and discovery in many fields of science and education not directly related to the care of the sick. Whenever a new discovery is made in any field of science, investigators attempt at once to determine whether or not it may have a direct bearing on the diagnosis and treatment of disease. Thus the invention of the microscope, of innumerable electrically lighted instruments with which the physician studies various portions of the human body, and the X-ray contributed enormously to the certainty of diagnosis in disease. Research in fundamental chemistry was necessary before Crawford Long and William Thomas Green Morton could use ether for anesthesia. Subsequent development of nitrous oxide-oxygen, ethylene, cyclopropane and other anesthetics depended also on chemical science. From the laboratories of pharmacology have come such amazing remedies as the barbituric acid derivatives, pain-relieving analgesics of the type of acetylsalicylic acid, acetphenetidin and amidopyrine. Many hours would be required merely to list such triumphs as the arsphenamines for syphilis, the sulfonamides for streptococcal, pneumococcal and similar infections, the antibiotics like penicillin, streptomycin and bacitracin, which have lowered death rates in many diseases nearly to the vanishing point.

There was surgery before the organization of the American Medical Association. Ophthalmology as a specialty was practiced by the ancient Egyptians and is mentioned by Herodotus. But the accomplishments of modern surgery, ophthalmology, otolaryngology and urology reflect the tremendous advancement of education in these

\*Reprinted from American Medical Association News.



specialties. The development and control of specialization in medical practice gained impetus with medical organization. The ideals that have governed organized controls in these fields have made the public vastly the beneficiary of the accomplishments. The American Medical Association would not arrogate to itself the credit for much of the advancement that has occurred in medicine in 100 years. Many achievements, however, may be credited almost wholly to the American Medical Association in the century with which we are concerned.

### Medical Education

The primary purpose of the organization of the American Medical Association was the advancement of medical education. In 1847 schools were mostly owned by groups of physicians who carried on medical education as a means of enhancing their individual prestige, and frequently for such added income as they might derive from teaching. Standards were simply not existent. The curriculum was designed with a view to being as little a burden as possible to those who sought a medical education. Often even the period of study was controlled by the need of the students to get home for the harvesting of crops. Anatomy was often taught by a demonstrator, his subject a corpse removed by stealth from an unwatched cemetery. Physiology and, in fact, practically all of medicine except surgery were conveyed to the student in didactic lectures with infrequent demonstrations of simple experiments performed by the professor on his desk or the table from which he taught. Those who had vested interests in medical education did not feel kindly toward the new organization which proposed to tell them how to conduct their medical schools and to place on such conduct a stamp of approval or disapproval.

Shortly after the organization of the American Medical Association the colleges associated themselves in the Association of American Medical Colleges. They began to develop among themselves concepts as to the admission of students, the methods of teaching, the hours to be spent, and decisions on other questions of medical education. Little real progress was made in the 53 years that passed before the turn of the century.

Then came the reorganization of the American Medical Association on a democratic basis and the establishment of the Council on Medical Education. There were at that time about 165 medical colleges in the United States, some of which admitted students directly from high school and

others even persons of advanced years with only a grade school education; some functioned as night schools; some had a curriculum of two years in which the same lectures were repeated in each six months; others of four years. The standards of admission were subject to doubt since there were also in the United States at that time secondary schools and high schools from which diplomas could be purchased for a consideration.

Even before there was a Council on Medical Education and Hospitals, The Journal of the American Medical Association began to publish annually a list of the medical colleges in the United States together with information as to the nature of the curriculum, the fees charged, the requirements for admission and other important data. Then with the establishment of the council, colleges were rated in groups as to their acceptability, the possibility of improvement and those hopelessly inadequate. The continued publication year after year of these data was the factor which ultimately brought about the disintegration of the weaker schools, the combining of several moderately good schools into strong schools and the encouragement of acceptable schools into a high quality of medical education. Coincidentally The Journal of the American Medical Association began publishing the records of the graduates of these schools in their examinations for licensure by the examining boards in the individual states. After all, one true test of medical education is the ability of the graduate to qualify for the practice of medicine as a profession. Today there are 77 acceptable medical schools in the United States and only one outside the pale of acceptability.

The quality of medical education in the United States as indicated by the standards of admission to a medical school, by the length of the curriculum and the nature of the subjects studied, by the quality of the teaching, and the ability of those taught to qualify for the practice of medicine with a great variety of examinations is an indication of the high estate to which medical education has risen.

In the progress of medical education much credit must attach to the Association of American Medical Colleges, to the National Medical Examining Board, to the Federation of State Licensing Boards and to the assistance rendered by the Carnegie Foundation when it sent Mr. Abraham Flexner as a representative to visit the medical schools of the United States accompanied by Dr. Nathan P. Colwell of the Council on Medical Education and Hospitals. These factors deserve



much of the credit for the tremendous reform and the progress that has been made, but primarily this has been a contribution of the American Medical Association.

### Patent Medicines, Nostrums and Quackery

Almost immediately following the establishment of the American Medical Association resolutions were introduced condemning the prescribing of patent medicines and nostrums, condemning also the adulteration of drugs and the sale of worthless preparations, condemning those in the medical profession and out of it who lent the aid of their names and of their prestige to the sale of remedies to the sick without any real understanding of the nature of the condition to be treated.

Early in its growth the American Medical Association cooperated in the development of the United States Pharmacopeia; since that time the association has played an intimate role in establishing standards for the drugs and preparations most often used by the medical profession in the treatment of disease. This cooperation has been invaluable in raising the standards of education and practice of pharmacy. As the years passed, the number of complexity of preparations used in treatment of disease increased continually. Eventually the German pharmaceutical manufacturers in large measure and those of Great Britain and France and of our own country to a lesser extent began to flood America with great numbers of new remedies which were sold to the medical profession and launched through the medical profession upon the public. The true science of materia medica, chemotherapy and pharmacy had not yet appeared. Even diseases known to be of the utmost seriousness, even those invariably fatal in their course, were exploited by manufacturers of patent medicines and nostrums with a callousness and cruelty hardly apparent in any other phase of human life.

The resolutions of an earlier period had called to public attention the warnings of the medical profession in regard to these abuses. Nevertheless the public paid but little heed until shortly after the founding of The Journal of the American Medical Association in 1883. Then came a demand for the rejection by the advertising columns of The Journal of all secret remedies and nostrums and of all proprietary medicines of which composition was unknown. The battle waged furiously. The association was condemned in the public press and elsewhere as a medical trust. Nevertheless, this agitation led to the establishment of the Council on Pharmacy and

Chemistry of the American Medical Association and the creation of a mechanism by which only such medical preparations could be advertised as were scientific in their conception, honest in their claims and non-secret in their character.

Here, too, was a situation in which an enlightened public joined hands with the American Medical Association in freeing our nation from a great evil. When Upton Sinclair wrote "The Jungle," the filth and adulteration of foods became common knowledge. When Samuel Hopkins Adams in Collier's and Edward Bok in the Ladies' Home Journal began exposing the fraudulent character of consumption cures, cancer cures, kidney cures and particularly alcoholic tonics, the American people recognized the menace that had grown in their midst. Shortly thereafter came the first Pure Food and Drug Act which served only to touch the surface of the problem.

In the past forty years the continuous work of the Council on Pharmacy and Chemistry and of its laboratories, aided by the Council on Foods and Nutrition and the Council on Physical Medicine, has led to a cleaning of the Augean stables. Finally in 1938 a new Federal Food, Drug and Cosmetic act was passed which actually served to protect the American people as no other nation in the world is protected against fraud in the field of medicine.

Many newspapers and periodicals have seen the evil of such advertising and have purged their pages of such announcements. Most of our leading magazines reject unhesitatingly the advertisements of harmful or secret nostrums. Moreover, the passing of the Wheeler-Lea bill and the creation of the Federal Trade Commission as a protection against exaggerated, false and misleading advertising, have given still more protection to the American people.

### The Quackeries

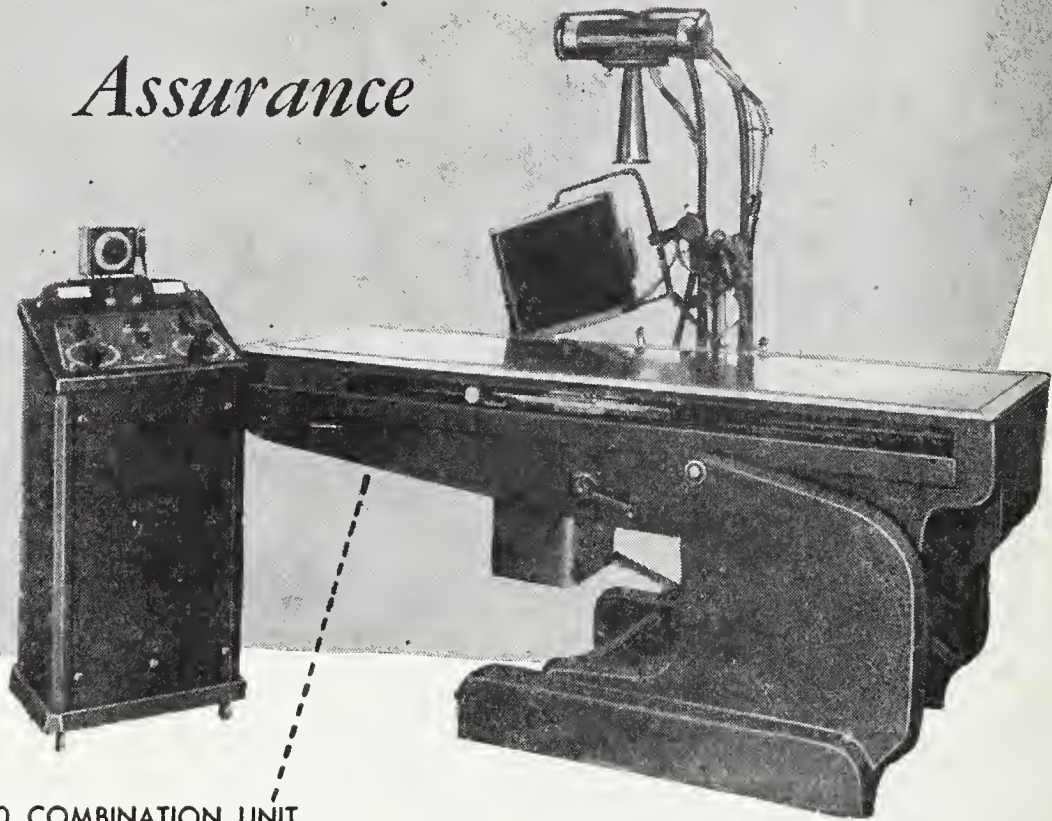
Quackery is perennial. Quacks have preyed upon the public in the field of health since the beginning of time. Just as America has created bigger and sometimes better devices, inventions and technics in many other fields, so also has America produced some of the greatest charlatans of all time. The names of Albert Abrams, John R. Brinkley, Norman Baker, William Koch and Harry M. Hoxsey are known to all America as men who have made hundreds of thousands, if not millions, of dollars by the exploitation of weird and amazing frauds. Electronic diagnosis and treatment, gland transplants for rejuvenation, and the cure of cancer by caustic pastes



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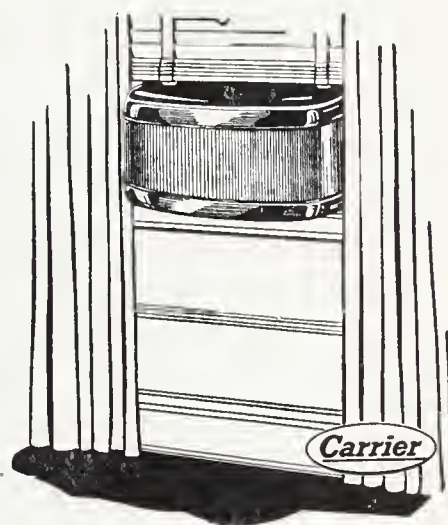
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and nostrums with the potentiality of water in their attack on cancer have featured the claims of the charlatans. The campaigns of the American Medical Association against such quacks have become world famed. Again and again the association has been haled into court charged with libel and slander for its attacks on charlatans. More than \$30,000,000 in libel suits have been pressed against the association in all of the years; it has never compromised or settled a libel suit. After going into court on a good many occasions its opponents can boast of only one instance in which the man who sued was awarded one cent in damages. Today the controls exercised over charlatans by an educated press and radio, by the Federal Communications Commission, by the Federal Trade Commission, the fraud orders of the Post Office Department, the Wheeler-Lea bill and the Federal Food, Drug and Cosmetic act are so all embracing in their powers that it would seem well nigh impossible for a charlatan again to reach the heights once occupied by such ghouls as Baker and Brinkley.

### The Cultists

The history of medicine reveals the names of many weird and extraordinary cults that have from time to time attempted to prevail with their singleminded "all or nothing" policies against the advance of medical science. Scientific medicine has always accepted any concept of the diagnosis or treatment of disease supported by scientific evidence. Never has it been willing to accept any peculiar notion, supported only by the claims of its originator and the well known effects of the powers of suggestion. Scientific medicine has learned from the performances of the cultists much regarding the relationship of the mind to the body. Homeopathy, eclecticism, new thought, Christian science, divine science, applied science, osteopathy, chiropractic and naturopathy have pressed their claims. Never has scientific medicine succumbed to the onslaughts of any of these cults regardless of the vast sums that have been spent by some of them in securing supportive legislation or in promulgating their views in the press and from the platform.

Today there are in the United States about 190,000 doctors licensed to practice medicine, of whom 165,000 are actually in practice. In contrast, no medical cult has ever been able to reach much more than some few thousands of licensed practitioners. The people of the country have enough knowledge of the difference in standards of education and methods of practice

in scientific medicine compared with cultism to avoid the cultist practitioners. In times of great shortage of physicians such as occurred in the war just ended, the cultists who failed to be accepted for military services in their professions waxed fat in many places while physicians abandoned their practices to serve the nation. But now that the war has ended, there comes a cry for more and more physicians from areas poorly supplied with medical services.

At the second meeting of the American Medical Association in 1848 Dr. Isaac Hays of Philadelphia presented the Principles of Ethics which, with minor modifications, were to guide the American Medical Association for the next one hundred years. These Principles of Ethics are one of the most remarkable accomplishments of any professional or trade group existing in our nation. They guide the physician in his attitude toward other members of his profession and toward the public. They voice the fundamental principles expressed in the golden rule and in every great moral code evolved by man. They urge always that the physician do unto others as he would be done by. They ask him to love his neighbor as he does himself. They caution him never to withhold from mankind any discovery that may be applied for the benefit of all. They teach him that the right of the patient is paramount. They lead him to respect the privacy and individuality of his patient. They teach him to recognize his responsibility to other physicians and to care for the families of other physicians. They preach always individual responsibility and the rights of the individual man. A group of physicians banded together in practice for mutual benefit have no rights that are paramount to those of an individual doctor. They recognize that medicine is both an art and a science. They carry on the evolution of medicine from the priesthood.

As new technics and new methods of organization for the delivery of medical service have grown, the Principles of Ethics have been modified from time to time to meet changing conditions but the fundamental principles of conduct of the profession for the benefit of its service to mankind have never been changed.

### Research

Early in its career the American Medical Association began offering prizes for essays and other contributions to the advancement of medical knowledge. Thus it continuously encouraged research.

When the Council on Pharmacy and Chemis-



try was formed, the need of special studies in establishing the worth and the nature of various remedies led to the creation of additional funds to be set aside for research in the field of therapy. These agencies—the Committee on Scientific Research and the Committee on Therapeutic Research, supplemented later by special grants for investigation of foods and physical devices—have been benefited over the years by total grants of more than \$1,000,000 given by the American Medical Association for fundamental investigations. Additional funds have been set aside from time to time to enable a continuance of participation by the association in the furtherance of basic scientific research in medicine.

Moreover, the association points with special pride to the maintenance at a loss year by year of from \$40,000 to \$50,000 of an indispensable tool for the advancement of scientific research—the Quarterly Cumulative Index Medicus. This publication indexes day by day, month by month, every important article published in the field of medicine. When the Index Medicus was founded by John Shaw Billings, it was hailed throughout the world as one of the greatest accomplishments for the advancement of medical science. The American Medical Association encouraged it with continuous publicity and promotion. Eventually with the increasing number of medical periodicals, the funds available to the Army Medical Library were found to be insufficient for its continuance. Then came a grant from the Carnegie Foundation which, however, after a short period, discontinued its contribution. In the meantime, Dr. George H. Simmons had arranged to improve greatly the technic of indexing in the Index Medicus by the development of the Quarterly Cumulative Index of the American Medical Association. Then when the Index Medicus was discontinued, the American Medical Association arranged to combine the Index Medicus with the Quarterly Cumulative Index and to carry forward this publication into the great contribution that it represents today. Since 1916 the American Medical Association has spent more than \$1,000,000 on this venture.

#### **Publications of the American Medical Association**

For thirty-six years the American Medical Association published each year a volume of Transactions. Then in 1883 the association established a weekly periodical, The Journal of the American Medical Association. In the succeeding 64 years this publication has risen to a position of pre-

eminence in the field of medical literature. It constitutes the very life blood of the American Medical Association. In its pages are reflected not only advancement in medical science but every phase of medical interest. Hardly had The Journal achieved success before there came recognition of the ability of the association as a publisher. One by one new periodicals were added in each of the medical specialties, beginning with the Archives of Internal Medicine and the American Journal of Diseases of Children and including today ten of the leading specialties in medical science. The special periodicals have been published without regard to profit, and with the one idea of aiding the advancement of the specialties that they concern. During the war just ended, the association met the emergency with a periodical called War Medicine, which reflected not only the general contribution of medicine to the war effort but also specifically the work carried on by the Division of Medical Sciences of the National Research Council.

#### **Public Education**

Early in the development of the American Medical Association physicians were urged to educate the public by such technics. However, the renaissance in American medicine which began with the turn of the present century saw a real awakening. Under the Council on Health and Public Instruction hundreds of lectures were given to the American people on a variety of medical subjects. Campaigns of education were carried on regarding vision, venereal disease, cancer and many other subjects. Then the association undertook the publication of a popular health magazine, Hygeia, which has reached a circulation of hundreds of thousands and which can truly be called the most widely quoted health education periodical in America. The good that it has done has been immeasurable.

The association continues to extend its education to the public through the press, through periodicals, over the radio and in the motion picture. Its officers and its employees give hundreds of lectures every year to great audiences of the people, reaching by all of these technics millions and millions of persons annually. Moreover in the bureaus and the councils of the headquarters offices at least 300,000 letters are answered each year from people who have learned to recognize in the American Medical Association a dependable source of information about disease and its care.

The pattern of growth in the American Medical Association was established by years of ex-



perience and represents a scientific and efficient procedure consistent with the democratic principle of government. As new problems arose to confront the medical profession, they were given consideration by discussions in the medical press and before the House of Delegates. As such problems assumed national scope, resolutions were introduced into the House of Delegates calling for the establishment of a special committee to consider the subject and to make recommendations. If such problems continued to be significant, due to their importance or their scope, these committees evolved into councils of the association which, in turn, were served by bureaus in the headquarters office. Occasionally a council which had assumed too many functions would be broken down into component units which, in turn, were either bureaus, committees, or other councils.

For instance the problems of industrial medicine were first considered as a portion of the work of the Council on Health and Public Instruction. This council was concerned also with education of the public through a lecture bureau and by pamphlets and with representing the association in considerations of new legislation before the Congress. The Council on Health and Public Instruction, having developed functions beyond its ability to handle, was broken down into the Bureau of Medical Legislation, the Bureau of Health Education, the publication *Hygeia*, and a lecture service conducted under the office of the secretary. In the ensuing years, however, industrial health assumed increasing importance so that eventually the House of Delegates created a Council on Industrial Health which is now concerned specifically with such problems. Moreover, when World War II ended, the periodical called *War Medicine* was transformed into *Occupational Medicine* and thus serves the new specialty of industrial medicine and surgery. Similarly councils were established to consider foods and nutrition and physical medicine as these subjects began to separate themselves from the general functions of the Council of Pharmacy and Chemistry.

Previously to 1900 there were less than 1,000 hospitals in the United States. Today the number rises rapidly beyond 7,000. As these institutions became the center of medical care, the medical profession through its organization was compelled increasingly to determine the standards under which they should function and their integration into the system of medical education

by the establishment of qualified internships, assistant residencies and residencies.

As medicine increased in its complexity, the costs of medical care mounted correspondingly. This made necessary the development of new technics for distributing the costs of medical care, at the same time, however, recognizing the necessity for maintaining the mutual responsibility between doctor and patient and the avoidance of a third party interfering between doctor and patient.

Out of such considerations came the Council on Medical Service of the American Medical Association and the technic for the development of voluntary prepayment insurance plans. Associated with this council is the Bureau of Medical Economic Research.

Early in its career the American Medical Association recognized the importance of the state in the development of preventive medicine and public health. More than any other organization it has the credit for the development of the state health departments and of the United States Public Health Service. It has cooperated with every voluntary health agency in assuring adequate return for the funds contributed by the people in promoting research and in education of both of the public and of the medical profession regarding tuberculosis, cancer, blindness, deafness, paralysis, heart disease and the work of the Red Cross in disaster and catastrophe. Some of its special campaigns have led to the elimination of the hazard of fireworks and gun powder in celebration of Fourth of July. It has led in the campaign against motor accidents and the provision of first aid when such accidents occur. It has carefully recorded the progress of the campaigns against deaths from typhoid and diphtheria. It has stood as the bulwark of medical science against the vast army of the ignorant; the stupid and the fanatic, the antivivisectionists, the antivaccinationists, the antimicrobial science groups. All of these functions it has carried on with never an appeal for funds from any agency outside the medical profession itself, never an appeal to any other agency than the medical profession itself to eliminate the evils and misrepresentations. Always it has been the pride of medicine that it has cleaned its own house; that it has recognized its obligations; that it has met every crisis in its career with its eyes set on greater goals for the good of mankind than have been its objectives in the past.



## THE OLD FOLKS\*

R. B. ROBINS, M. D.,  
Camden, Arkansas

For a number of years now we have been becoming a nation of older people and this has reflected itself medically, socially and economically in our national life. We have entered an Age of Age.

### Percent of Population

Year	45 years and older	65 and older
1850 .....	12.6%	2.6%
1900 .....	17.8%	4.1%
1940 .....	26.5%	6.8%
1980 .....	40.3%	14.4%

There are several factors that have been responsible for this shift in our age groups. First, there has been a decrease in birth rate (our birth rate has dropped about one-third since the beginning of the century); second, a decrease in immigration which formerly brought a lot of young people into the country, and finally, an increasing number of people surviving into middle and later life because of better sanitation and control of infectious diseases.

### Life Expectancy at Birth

1850 .....	40 years
1900 .....	47 years
1940 .....	63 years
1947 .....	66 years

### Ages of Physicians in U. S. (1942)

52.3% Over 45 Years of Age

17.8% Over 65 Years of Age

As stated above, these changes have brought about medical problems, social problems and economic problems.

The doctor's attention is being directed more and more to the degenerative diseases.

Let us compare the ten leading causes of death today with what they were at the beginning of the century.

### Leading Causes of Death

	1944	1900
Heart Disease .....	1	4
Cancer .....	2	8
Cerebral Hemorrhage .....	3	7
Violence .....	4	6
Nephritis .....	5	5
Pneumonia .....	6	2
Tuberculosis .....	7	1
Diabetes .....	8	27

Premature Birth .....	9	12
Arteriosclerosis .....	10	34

### Mortality—The Age Picture

1900.....	40%	Were at 45 Years and Older
1947.....	75%	Are at 45 Years and Older
1960.....	80%	Will Be at 45 Years and Older
2000.....	90%	Will Be at 45 Years and Older

The medical profession will concern itself more and more with diseases and conditions which affect older people.

It is estimated that by 1980 our birth rate and death rate will be about the same and we will reach our maximum population of approximately 153 million people.

The science which deals with the first childhood is called 'pediatrics' and that which deals with the second childhood (so-called) is called 'geriatrics.' Abraham Jacobi gave the first course in pediatrics in 1859. It was poorly received and 37 years elapsed before a textbook on the subject was published. The term geriatrics was coined in 1909 by Nascher and since that time a number of books have been published on the subject especially recently. Geriatrics will eventually be more important than pediatrics. Our time in the future will be more and more taken up with the care of the degenerative diseases.

In a paper of this type it is impossible to go into great detail, but there are several points that I would like to stress.

There are a lot of unknowns about the biochemistry and physiology of ageing and there is great need today for research in this field.

### Asymmetric Research Expenditures

	Amt. spent for each death
Infective Disease .....	\$ 4.00
Cancer .....	2.00
Infantile Paralysis .....	500.00
Circulatory Disease .....	.17

Biologic age and chronologic age are not always the same. Some of us may be physiologically older or younger than the years of our lives would indicate.

No doubt heredity is a great factor, but there are many other factors, which are obscure, such as the accidents of living—namely—infections, diet, overwork, laziness, gluttony, alcohol, tobacco and what have you.

There has been no scientific evidence, however, to prove that the use of tobacco and alcohol in moderation curtails life.

There is another field in geriatric medicine that has been fairly well explored and that is the matter of sexual rejuvenation. At the present

\*Read before the 71st Annual Session, Arkansas Medical Society, Little Rock, April 19, 1947.



time it can be emphasized that we have found no way to sexually rejuvenate old people.

We doctors must remember another characteristic of old people and that is that usually they suffer less pain than young people. Rolleston said, "The organs suffer in silence." Gallstones or kidney stones may cause very little pain. On account of this phenomenon we may be inclined at times to underestimate the seriousness of an old person's illness.

All of us recognize the value of what is called "art" as well as "science" in the practice of medicine. This is particularly true in treating old people. It is very important to consider their feelings and emotions. The headache may be due to worry or to living in unpleasant surroundings rather than due to hypertension. The indigestion may be caused by the same factors rather than cholecystitis or cancer of the stomach. It is important "what we do," but it is also important "how we do it."

Let us remember the words of George Morris Piersol who said our aim as physicians should really be to "add more life to the years rather than more years to the life." We will find that one of the rewards we receive in treating old people is frequently a gratitude that we do not always receive from treating other groups of people.

There is an economic and social phase of this discussion which needs some consideration and that is the present tendency to retire employees at a definite age, usually sixty-five. This is a prevalent practice in industry, in government and in educational institutions. Someone has said that if this practice continues much further, those earning a living beyond sixty-five will soon be limited to U. S. Senators and doctors.

The experience of the war years, when many older people were pressed back into service, demonstrated the usefulness of these people in every field of endeavor. Many outstanding examples may be cited of men and women whose old age was marked by their greatest achievements.

Benjamin Franklin at 79 was a leading public figure in the United States. Thomas A. Edison, between the ages of 70 and 80, introduced some of his greatest inventions. Elihu Root was active in his legal work at 90; Oliver Wendell Holmes at 90; Lord Balfour after 85. Gladstone was prime minister at 83. Lloyd George married at

80 and was a power in the British Parliament then. Longfellow, Holmes, Whittier, Bryant and Tennyson wrote some of their finest poetry after the age of 75. Nicholas Murray Butler was very active as president of Columbia University at 82. Michelangelo created some of his finest pieces of art when in the middle eighties. John Wesley was preaching regularly at 88. Connie Mack was manager of the Philadelphia Athletics in his eighties. Alonzo Stagg, 81-year-old coach of the College of the Pacific, was named "The Football Man of the Year" in 1943. Numerous examples of this type may be cited.

Many old people who are mentally alert and vigorous, when they are forced out of employment, age rapidly. They resent being forced into a parasitic existence and many times they become hypochondriacs. It is said that George Washington retired three times in his life, each time to become a neurotic. He was pressed back into service each time by his country and his complaints cleared up.

Compulsory retirement at a given age takes many an individual away from a job at a time when he is most efficient. This is a challenge to our modern society. Places should be found in our business and industrial world for these older people.

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## PHOTOGRAPHS AS MEDICAL RECORDS

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HOWARD S. STERN, M.D., A.I.C.S.  
Little Rock

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It has been said, and wisely, that a single good picture is worth a thousand words of description. This is especially true in the field of medicine where a single disease can manifest itself by a variety of lesions. A single patient, in fact, may produce several forms of almost any given lesion.

Since the foregoing paragraph is undoubtedly true, it is amazing how few physicians, or even large institutions, photograph their patients. Because the author is deeply interested in anything that pertains to photography and/or medicine, he has inquired here and there in an attempt to discover the cause. Boiled down, the answers were as follows: "Too expensive." "Too difficult." "No time for such work." In nearly every case there was a momentary interest aroused, accompanied by vague plans for such records; as



well as inquiries as to how to get started. One or two did start, and a few men had a professional photographer make a few shots. As this was necessarily expensive, and as it is difficult to explain to a layman just what is wanted, the practice was soon discontinued.

Let us attempt to answer the objections listed above. Unless one's patients come in droves, the expense after the original outlay, is negligible. Film prices are in almost direct proportion to size, running from fifty cents a dozen for  $2\frac{1}{2} \times 3\frac{1}{2}$  inches to a dollar and a quarter for  $5 \times 7$ . Anything larger than  $5 \times 7$  is an expensive luxury. The chemicals used in preparing the processing solutions are inexpensive, and prepared developer powders (requiring only water to make a solution) may be purchased for as little as five cents a tube; each tube making eight to sixteen ounces of solution for tray development. By greater dilution, most of these can be used in tanks also. Hypo (sodium thiosulphate) is one of the cheapest of chemicals, selling for about ten cents a pound. Paper for prints is sold like film but at lower rates. Twenty-five cents will purchase 24 sheets of  $2 \times 3$  paper, and a dollar will buy twelve  $8 \times 10$ 's. If care is exercised, and waste is kept at a minimum, the cost of these pictures as compared to their value, is naught.

Just how difficult is the making of a satisfactory picture? A little care in arranging the material and focusing the camera, a bit of thought regarding the exposure, and if one does not forget to pull the dark slide, the picture will be good. In processing, watch the time and temperature chart and keep things clean, and the procedure, reduces itself to soaking the film in the developer, then in water or stop bath, and then in hypo. After washing and drying, the negatives are finished. Prints are made in a similar manner. Does that sound difficult? A twelve-year-old boy living near the home city of the author was presented at Christmas with one of the super deluxe complicated miniature cameras, and within the space of a few months had so mastered this really difficult technique that his prints were exhibited in one of the world's leading photographic salons. If a twelve-year-old can do it, cannot a college trained adult do at least as well?

It is true that to turn out good photographs, one must devote some time to the art. However,

this need not be an insurmountable difficulty if the process is systematized. The camera equipment may be left intact in an unobstructive corner of the office, and when a recordable lesion comes along, it is but the work of a moment or so to make an exposure. The developing may be left until the last job of the day and an hour and a half will finish all one can do in a day. If one prefers he can train his receptionist or assistant to do the processing. Commercial developing is inexpensive, and saves the physician's time.

\* \* \*

The author firmly believes that it is well nigh impossible to overestimate the value of clinical photographs—both to the individual and to the science of medicine as well. Many years after a tissue has returned to the dust from which it originated, a photograph still shows it in all its original freshness. Details which the human eye has missed are faithfully recorded by the all-seeing lens. With the advent of natural color photography, even the various colorations of different lesions may be preserved.

In certain diseases, especially in the fields of orthopedics, maxillo-facial surgery, and ophthalmology, serial photographs are of inestimable value as progress records. Different phases of the slow processes of nature may be viewed simultaneously, and often even the physician is surprised by the differences. Many a plastic surgeon has been well (and legitimately) advertised by the simple expedient of presenting his patient with two photos, one made before the treatment, and the other, afterwards.

Every year in this country there are state medical meetings, regional and national conventions. At each of these, many papers are read and new work is exhibited. With a file of negatives made during the year, or during the work, it is a simple matter to provide many good lantern slides to illustrate the speeches, and to secure good enlargements to enhance the exhibits. Here again we have need of the serial pictures to illustrate new operative techniques, and case progression. Good before and after pictures can tell the visiting doctor more than hours of lectures could do.

The age old maxim that has put rational medicine in its present high place is, "Take nothing for granted." The sister maxim to this should be, "If you can see it, photograph it!"



# TUBERCULOSIS ABSTRACTS

## *A Review for Physicians*

ISSUED MONTHLY BY THE NATIONAL TUBERCULOSIS ASSOCIATION

PHYSICIANS have long observed that tuberculosis attacks the upper lobes of the lung by preference. A physiological explanation for this fact has been advanced. This hypothesis, if accepted generally, would put the standard treatment for tuberculosis—bed rest—on a sound scientific foundation, and mark a significant advance in our knowledge of infection and therapy in tuberculosis.

### APICAL LOCALIZATION OF PHTHISIS

No discussion of human tuberculosis and its management is complete or convincing unless it takes into account the fact that, in its inception and throughout much of its course, phthisis in adults is confined to the upper third of the lungs. Most members of white and many members of yellow racial groups are almost immune to tuberculosis except in this region. It is a remarkable fact that, even after the sputum and gastric washings contain bacilli consistently, pulmonary lesions for years may be limited to the upper third of the lungs.

Explanations of this curious predilection for the apex have been unsatisfactory. Those who have most consistently urged bed-rest for the treatment of phthisis seem unconcerned with the apical localization and its significance in the pathology and therapy of tuberculosis.

The relation of man's erect posture to the physiological functioning of the lung is usually ignored. Recently published data on blood pressures in the right ventricles of human hearts show that when a tall, long-chested individual is standing or sitting the pressure of the column of blood from the right ventricle to the apex of lungs is equal to or greater than the mean arterial pressure in the pulmonary arteries. Thus the flow of arterial blood will be greatly restricted or even absent at the apices of the lungs of most adults while they are in the erect posture. Nor at such times is tissue fluid or lymph produced by filtration in this area since it requires nearly 15mm. Hg pressure to overcome the difference in osmotic pressure between the plasma and the pulmonary tissue fluid.

As a result of the decreased flow of blood addition of carbon dioxide to and removal of oxygen from alveoli in the apical region will be minimal. Tubercle bacilli reaching this tissue will

be in an optimal atmosphere to support their metabolism although this is probably not an important factor in apical localization.

As long as the subject is sitting or standing, the pulmonary arteries can bring few antibodies to the apical region and removal of bacterial products by lymph, or dilution by diffusion into the blood will be almost nil. Only when the patient is recumbent will these tissues be protected against accumulation of toxic substances. Removal of bacteria to the lymph nodes will be suspended during most of the waking hours, as will the replacement of antibodies and of monocytes from the blood.

In view of these facts, it is not remarkable that active tuberculosis so regularly begins in this region, or that it shows a predilection for the tall, long-chested individual and the lively young people who get a minimum of sleep. Lack of rest is important in that it gives the bacilli the maximal number of hours of optimal growth conditions and the tissues the minimal number of hours when the neutralization and dilution of toxic products, and the supply of antibodies and blood-borne phagocytes are as adequate at the apices as elsewhere in the lungs.

The great frequency of silicotic lesions at the apex also may be due to the fact that dust particles reaching this region will be removed by phagocytes less rapidly, and the injurious substances will be diluted and removed more slowly than in other parts of the lung.

This explanation of apical susceptibility is borne out by the statistics on the relationship of pulmonary tuberculosis and heart disease. Where the pulmonary circulation is depleted, as in cases of pulmonic stenosis, the incidence of active tuberculosis is high. Where there is pronounced mitral stenosis and the pulmonary circulation is



engorged, cases of pulmonary tuberculosis are a rarity. This is not a matter of academic interest only. If the explanation given above is correct, obviously the ideal treatment of the early apical lesion is complete recumbency for most of the 24 hours. Clinicians who insist on "complete bed-rest" should realize that propping the patient up in bed for more than half an hour at a time interferes with the correct postural management.

So long as bed-rest remains an empirical and nonspecific form of therapy, it will be difficult to enforce it on intelligent people who feel well. An understandable, physiological explanation will make their cooperation more certain. To every adult with an apical lesion the hazards of the erect posture and the value of recumbency should be stressed. However, complete bed-rest, with its attendant discomfort and higher cost of nursing care, may not be superior to many hours of recumbency with brief periods out of bed.

Prolonged bed-rest will be better borne if numerous and gradually lengthening periods of sitting up or strolling about can be alternated with recumbency. A consideration of the pathogenesis of the apical and subapical lesions suggests that this may be sound practice in patients not prostrated by disease.

Apical Localization of Phthisis, William Dock, M. D., American Review of Tuberculosis, April, 1946.

### POSTURAL FACTORS IN APICAL TUBERCULOSIS

The theory that apical tuberculosis is due to postural ischemia accounts for its frequency in those young adults, studious or playful or both, who get little rest and are continuously erect 14 to 20 hours daily. If accepted, this theory also explains why bed-rest alone is effective in so many of these cases but of much less value in those with pulmonary basal lesions or tuberculosis of the kidney, epididymis or skin. When patients are propped up in bed to read, ischemia of the apex is not abolished. The effectiveness of bed-rest is thus greatly increased by outdoor exposure during the day, as the breezes and bright light discourage reading and promote appetite and sleep by stimulating the skin and tiring the eyes. Where patients are outdoors during the day they spend the maximal number of hours quiet and completely recumbent. However, it seems not impossible that brief intervals out of bed for meals and to facilitate nursing would not unfavorably affect the "cure" and make it less demoralizing and costly.

The new understanding of apical tuberculosis will make such therapy as complete recumbency easier for patients to accept. While awaiting specific antibiotics capable of controlling this disease, physicians will welcome a reasonable explanation for the pathogenesis of apical tuberculosis and for the therapeutic method which is still the main reliance in dealing with the commonest cause of prolonged disability and of death among young adults.

Editorial, Journal of the American Medical Association July 13, 1946.

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### REGULAR ARMY COMMISSIONS WITH MEDICAL CORPS

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(Quotation from letter from Fourth Army Headquarters)

"Due to the highly critical shortage of physicians, dentists, and medical specialists in the Regular Army, the War Department authorized the acceptance of applications until 31 July 1947 for commission in the Regular Army of Medical Corps, Dental Corps and Medical Adm. Corps or Sanitary Corps officers with MOS and SSN as follows, regardless of previous failure to meet deadline dates or previous declination of appointment:

"Bacteriologist, \$3,307; biochemist, \$3,309; parasitologist, \$3,310; serologist, \$3,311; clinical laboratory officer, \$3,314; entomologist, \$3,315; nutrition officer, \$3,316; toxicologist, \$7,316; industrial hygienist, \$7,430; sanitary engineer, \$7,960; clinical psychologist, \$2,252; psychiatric social worker, \$3,605."

Applications submitted by personnel meeting the above requirements will be completed in triplicate as directed by paragraphs 7 and 8, Circular 289, WD, dated 24 September 1946, and will be postmarked or forwarded to this headquarters not later than 2400 hours, 31 July 1947.

Blank application forms (WD AGO Form 62) may be obtained from posts, camps and stations or (in the event of non-availability at such installations) directly from Headquarters, Fourth Army, Fort Sam Houston, Texas.

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### DOCTOR WANTED

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OF THE

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## EDITORIALS

### DOCTORS IN SERVICE HAD TIME ON THEIR HANDS, SURVEY SHOWS

Analysis of Questionnaires Reveals That During  
Combat Service Army Doctors Busy Only  
71 Per Cent of Time

Army and Navy physicians who served in World War II had time on their hands while doctors who remained at home during the war years were over-worked, according to an analysis of questionnaires returned by former military medical officers contained in a report to the Committee on National Emergency Medical Service of the American Medical Association.

The report, announced recently, is based on an analysis of 26,000 replies to a questionnaire sent out to discharged medical officers and was prepared by Frank G. Dickinson, Ph.D., director of the Bureau of Medical Economic Research of the American Medical Association.

"Navy doctors were more idle than Army doctors only because they had fewer nonprofessional duties," the report shows. "During combat

service they were busy only 71 per cent of their time, gaged by civilian standards, of which 51 per cent was in the performance of professional duties and 20 per cent in the performance of nonprofessional duties and 20 per cent in the performance of nonprofessional duties.

Army medical officers estimated that under the same conditions they were occupied with professional duties 50 per cent of the time, and 30 per cent with non-professional duties. During noncombat periods, Navy doctors were busy with professional duties 40 per cent of the time and with non-professional duties, 16 per cent; Army doctors reported 39 per cent of their noncombat time was occupied with professional duties, 23 per cent nonprofessional.

In contrast to this report, the analysis of 2,322 replies to a questionnaire sent to a random selection of physicians who remained in civilian practice during the war years showed that they had treated 76 per cent more patients in 1944 than in 1941. Results of the civilian physician questionnaire were announced two weeks ago.

The study of the war-time experience and opinions of military and civilian physicians has been conducted by the Committee on National Emergency Medical Service of the American Medical Association which will make its report to the House of Delegates of the Association next week in Atlantic City. The report will include recommendations for meeting civilian and military needs for medical care in the event of another national emergency.

Members of the committee include: Edward L. Bortz, M.D., chairman, of Philadelphia, who will be inaugurated as president of the association at the Atlantic City session, and Harold S. Diehl, M.D., Minneapolis; Perrin H. Long, M.D., Baltimore; Harold C. Lueth, M.D., Omaha; O. O. Miller, M.D., Louisville; James C. Sargent, M.D., Milwaukee and V. C. Tisdal, M.D., Elk City, Okla.

The report stated that the replies came from 20,001 Army doctors; 5,727 former Navy doctors and 290 replies from the U.S. Public Health Service or Veterans Administration doctors or from combinations of the four during World War II. These 290 replies will be analyzed later.

Comparisons between Army and Navy doctors revealed that the average Army doctor served 42 months as against 36 months for the average Navy doctor.

The report said in part: "A smaller percentage of Navy doctors, 11, were general practitioners before entering military service than Army doctors, 17; likewise fewer Navy doctors were part



time (18 per cent) and more (33 per cent) were full time specialists; also more (20.3 per cent) were members of American boards. The replying Navy doctors slightly outranked the replying Army doctors, and slightly more of them spent their entire or longest period of service in North America. A larger percentage (60) Army than Navy spent more time in hospitals than in dispensaries and other types of service.

"Doctors were asked to estimate the number of physicians actually needed in their units; Army replies averaged 72 per cent and Navy replies 70 per cent, reflecting consideration of 'peak load' requirements. The general conclusion of the survey is that considerably more doctors were inducted into the armed services than were needed in the opinion of the doctors themselves, although some question may be raised concerning the competence of humble doctors in the ranks to measure military necessity as to both time and non-profession duties. Replies from so many doctors give weight to these criticisms—the wastage of medical skills.

"Both Army and Navy doctors agreed that 'professional on-the-job' training was the most useful feature of their training, and that an ideal training program should stress more medical training, both general and in the specialized fields of military medicine. Neither Army nor Navy doctors were enthusiastic about their assignments, although Navy doctors were slightly better satisfied. Forty-eight per cent of the Navy doctors reported that they were rotated in assignment, and only 22 per cent Army doctors. Apparently this difference is not due entirely to the inherent differences between the two branches of the service. A question relating to how medical personnel could have been used more effectively if it was wasted in his unit brought replies which stressed better assignments, reduction in the number of doctors and fewer nonmedical duties, the latter being stressed more by Army than by Navy doctors. Suggestions regarding assignment of medical officers in the event of another national emergency revealed that more consideration of age and qualifications, assignment according to actual need, rotation of duties, and rank and promotion according to professional ability were the most popular remedies. In rating efforts to utilize their professional skills, the replies indicate that the doctors thought these efforts only moderately successful, even less for Army than for Navy. The replies indicated reasonable success in getting medical publications to the doctors, although, of course, Navy doctors had less trouble

with transportation and received the journals more regularly. Army doctors reported more teaching clinics and more medical meetings in their theaters than Navy doctors."

In conclusion the report analyzed what the doctors wanted in case of another national emergency.

"What they want must surely be a bold, courageous, forward-looking program and not one which looks backward toward the last war," the report said, adding: "They want a public-spirited organization, representing the profession, established and implemented in the hope that it can help to prevent the mistakes of World War II. They want the limited supply of medical skills carefully and wisely distributed so as to attain the highest standards of medical care for civilians and military personnel in the event of another national emergency. They doubt that 60 per cent of the nation's physicians could provide effective medical care for the civilian population in the event of an atomic war."

"In the second place," the report continued, "the former medical officer wants the highest officials in Washington to ask the Secretary of War and Secretary of Navy to review their organizational tables and procedures in order to prevent a recurrence of (1) the medical overstaffing of units, (2) wasting of the time of doctors of medicine in the performance of non-professional duties which could have been performed effectively by nonmedical personnel, (3) removal of a needlessly excessive number of doctors of medicine from civilian hospitals and practices, (4) the rather widespread failure to make assignment and provide for rotation of doctors of medicine on the basis of their professional skills and qualifications, experience and age, (5) a military hospital construction policy which will give close attention to possible civilian wartime requirements.

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## CASH SICKNESS BENEFITS FOR RAILROAD WORKERS

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Effective July 1, a cash sickness benefit system for railroad workers begins operation. This was provided by amendments to the Railroad Unemployment Insurance Act of 1946 and will serve to pay partial compensation for wage loss due to disability. The system will be administered by the Railroad Retirement Board through its various offices.

All disabilities which prevent railroad em-



ployees from working, regardless of how or where they occur, are covered under the program. A physician's statement of sickness will be required before claims can be paid. There is freedom of choice of physician and any physician to whom an employee goes for examination or treatment may supply the information required as initial proof of an employee's claim.

Medical information will be furnished on a "Statement of Sickness" and a "Supplemental Doctor's Statement" forms. The first form is primarily intended to obtain information at the beginning of each illness and the second will furnish additional information only when such information is needed later on in the same illness. The statements are designed to furnish as simply and as conveniently as possible for the physician, the minimum information required for Board purposes.

The "Statement of Sickness" form must be mailed to appropriate office of the Railroad Retirement Board within seven days after the first day claimed as a day of sickness, or the employee may lose part of his benefits. Claims for succeeding 14-day periods may be allowed for a predetermined period as indicated by the medical evidence of the doctor's initial statement, but in continuing illnesses, supplemental information about the patient's illnesses may also be requested from the physician. Only doctors of medicine are permitted to complete the statements.

## THE ARKANSAS CANCER BULLETIN

In continuation of its professional education program, the joint committee from the Committee on Cancer Control, Arkansas Medical Society, and the Arkansas Division, American Cancer Society, has arranged for mailing in July to each member of the Society, the excellent bound booklet on cancer originally published by the Committee on Cancer Control of the Illinois State Medical Society. The Illinois State Medical Society has generously permitted the Arkansas committee to use his booklet in its educational program. The articles are authoritative, well-illustrated and present the field of malignant disease in form readily available for reference and study by the members of the Society. Should any member fail to receive a copy of the Bulletin, it is requested that the state secretary be notified.

## RANDOM THOUGHTS OF THE SECRETARY

June 6th. By the airlines today with Jones, Florence and Davis Goldstein, to Washington where we dine at O'Donnells and thence by rail to Atlantic City, the last part of this trip convincing the jolted Jones that air travel is the preferable mode.

June 7th. Awakened by the National Committeeman, Robins, at 6:30 A. M. Daylight Time, eager to be up and about with the business of the meetings and strolling the famous Boardwalk and busy with the radiologists for the day. In the evening to the presumed serious business of planning the "Grass Roots Conference," Robins' child, in need of a foster father this night.

June 8th. With the affairs of radiology for the morning and to take our post on the panel at the County Society Officers' Conference this afternoon, pleased to have McCurry, Robins and Jones in the audience with some 200 others and the discussion continues with animation to late in the afternoon, an auspicious beginning.

June 9th. From the rear of the inadequate meeting room, we observe and listen to the deliberations of that august body, the House of Delegates. In the late evening hours, Euclid Smith comes to town and having the social courtesies in mind as always, takes time from his activities to call on us, recumbent in a comfortable bed at 11:30 P. M.

June 10th. Meeting this date fellow-townsmen Hoge, Crigler and Goldstein and finding that there is as much talk of the White Company's gift Cadillac as of the scientific phases of the meeting. About the exhibit hall where the Camel and Ivory soap booths have lines awaiting gifts.

June 11th. With the meeting place most of the day observing the increasing technic in display of commercial exhibitors and the exceptional scientific exhibits. With the Robins, the Wallises, the Klughs, Euclid Smith and Jones away from the city in some direction where there is much of food and fellowship in this limited Arkansas gathering.

June 12th. Away to the big town finding it hot and humid in unpleasant contrast to the seaside.

June 13th. Homeward after a pleasant late afternoon ride by TWA into Saint Louis and a comfortable night aboard a Pullman giving thought to the fact that Rob Robins talks this day to the section on general practice, to be followed by a paper on "Headache."

## OBITUARY

EDGAR S. WHALEY, age 64, Carlisle, died of a heart attack in his office June 13th. A graduate of the Memphis Hospital Medical College in 1910, he had practiced in Carlisle for the past 15 years, having formerly practiced at Prescott. He was local surgeon for the Rock Island Lines, a past-president of the Lonoke County Medical Society, a Mason and a member of the Methodist church. Surviving relatives are his wife and three daughters.





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ECZEMA	128	79	7	42	61.7
HAY FEVER	425	350	36	39	82.4
ASTHMA	435	275	7	153	63.2
MIGRAINE	73	48	1	24	65.7
ANGIONEUROTIC EDEMA	54	46	1	7	85.2
ATOPIC DERMATITIS	66	42	1	23	63.6
PRURITUS	24	18		6	75.0
ERYTHEMA MULTIFORME	28	22		6	78.6
DERMOGRAPHIA	20	15		5	75.0
FOOD ALLERGY	37	32		5	86.5
CONTACT DERMATITIS	63	49		14	77.7
PHYSICAL ALLERGY	11	7		4	63.6
REACTIONS—ANTIBIOTIC	84	81	1	2	96.4
REACTIONS—DRUGS	46	42		4	91.3
REACTIONS—BIOLOGICS	12	12			100.0
DYSMENORRHEA*	44	38		6	86.3
TOTALS	2665	2116	72	478	79.39

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## PROCEEDINGS OF SOCIETIES

The Craighead-Poinsett County Medical Society met in dinner session at Jonesboro June 5th for papers on malaria by Joe Verser, Harrisburg, and C. H. Reagan, Marked Tree. Motion pictures on the same subject were presented.

J. H. McCurry, Secretary.

The American Academy of General Practice was organized at the recent centennial session of the American Medical Association in Atlantic City. This organization will have the same status in American medical organizations as similar academies such as the American Academy of Pediatrics, the American Academy of Ophthalmology and Oto-laryngology and others.

There are definite standards of eligibility for membership and the membership is reviewed every three years. Members are required to do at least 170 hours of postgraduate training every three years in order to maintain membership. This organization is to take the place of a specialty board for the general practitioner.

Dr. R. B. Robins of Camden and Dr. John H. Wilson of Magnolia are the two delegates representing this organization in Arkansas. Membership dues are \$25 the first year and \$10 annually thereafter.

Further information may be obtained from Dr. R. B. Robins of Camden, Arkansas.

The Benton County Medical Society met with the Washington County Medical Society in dinner session at Fayetteville June 3rd with a motion picture on hematology as the program.

G. C. DeBolt, Secretary.

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## PERSONALS AND NEWS ITEMS

H. H. Buckelew has been elected surgeon of the Rogers post of the American Legion.

Geo. C. Burton, El Dorado, has been elected a member of the American College of Radiology.

Ralph E. Crigler, Fort Smith, has been elected a member of the American Proctologic Society.

Dr. and Mrs. W. F. Adams, Fort Smith, spent a recent vacation at Hot Springs and Galveston.

Geo. W. Jackson, Little Rock, has been appointed superintendent of the State Hospital.

Fred Hames, Pine Bluff, and W. R. Brooksher, Fort Smith, attended a refresher course in radiology and cancer at the University of Kansas, Kansas City, May 26th-28th.

Robert M. Kelly, Lonoke, has been appointed regimental surgeon, 153rd Infantry, Arkansas National Guard.

John McCullough Smith, Little Rock, recently took a two-weeks course in gynecology at Cook County Hospital, Chicago.

J. H. Moseley has moved from Eudora to Crossett.

BORN—on April 16, 1947, Arthur C. Curtis, Jr., to Dr. and Mrs. A. C. Curtis, Little Rock.

Ellery C. Gay and Henry G. Hollenberg, Little Rock, attended the meeting of the Southern

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Surgeons Club at Atlanta and visited clinics in New Orleans during May.

The following were registered at the Atlantic-City session of the American Medical Association: Hoyt R. Allen, Little Rock; A. F. Barr, Cherry Valley; W. L. Boswell, Clarendon; W. R. Brooksher, Fort Smith; G. E. Cannon, Hope; G. C. Coffey, Hot Springs; Ralph E. Crigler, Fort Smith; S. G. Daniel, Marshall; J. C. Glad-den, Little Rock; Dorothy Goetze, Hot Springs;

D. W. Goldstein, Fort Smith; W. B. Grayson, Little Rock; Fred W. Harris, Little Rock; L. M. Henry, Fort Smith; Wm. Hibbitts, Texarkana; R. W. Hipsley, Crossett; A. F. Hoge, Fort Smith; R. H. Huntington, Fayetteville; I. F. Jones, Fort Smith; R. H. Kemp, Texarkana; W. G. Klugh, Hot Springs; L. J. Kosminsky, Texarkana; D. C. Lee, Hot Springs; Ruth E. Lesh, Fayetteville; V. O. Lesh, Fayetteville; J. S. Levy, Little Rock; L. M. Lile, Hope; J. M. McCurry, Cash; E. W. Pillstrom, Ozark; J. H. Rives, Little Rock;

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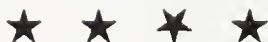
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D. A. Rhinehart, Little Rock; R. B. Robins, Camden; O. C. Smith, Hot Springs; E. M. Smith, Hot Springs, and Chas. Wallis, Little Rock.

H. King Wade, Hot Springs, as been appointed a member of the Arkansas Legislative Council representing the Society.

W. A. Jackson and G. C. DeBolt have been elected vice-president and director, respectively, of the Rogers Lions Club.

The State Medical Board of the Arkansas Medical Society has elected the following officers: President, J. B. Jameson, Camden; vice-president, J. T. Matthews, Heber Springs; and L. J. Kosminsky, Texarkana, secretary.

Robert W. Ross, Little Rock, is now serving a residency at St. Louis Maternity Hospital, St. Louis.

R. E. Schirmer has moved from Camden to Little Rock.

Due to the highly critical shortage of physicians, dentists, and medical specialists in the Regular Army, the War Department authorized the acceptance of applications until July 31, 1947, for commission in the Regular Army of Medical Corps, Dental Corps and Medical Administrative Corps or Sanitary Corps, officers with SSN as follows, regardless of previous failure to meet deadline dates or previous declination of appointments:

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## OF THE ARKANSAS MEDICAL SOCIETY

PUBLISHED MONTHLY UNDER DIRECTION OF THE COUNCIL

Vol. XLIV

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No. 3

### PRESENT DAY TREATMENT OF DIABETES IN THE PREVENTION OF DEGENERATIVE COMPLICATIONS\*†

ALEXANDER MARBLE, M. D.

Boston

#### INTRODUCTION

The treatment of diabetes in the present day differs from that of many diseases in that it must be planned so as not only to correct abnormalities and alleviate symptoms which may exist now but also to promote health and a happy, useful life for many months and years to come. Before the days of insulin, this long-range planning was not so important, or at least not so profitable, because without insulin the life expectancy after the onset of diabetes was, for most patients, relatively short anyway, even under favorable conditions. It was the unusual child who lived longer than 2 years after the onset of diabetes and, in the experience of Dr. Elliott P. Joslin and associates, (1) the average age at death of all patients dying between 1914 and 1922 was only 46.9 years after an average duration of diabetes of only 6.1 years. Death took place most often as a direct consequence of diabetes, namely in diabetic coma. From 1898 to 1914, 63.8 per cent of deaths—more than 6 of every 10—were in diabetic coma. Considerable reduction in coma deaths took place in 1914 to 1922 during the period of treatment by under-nutrition, but it was not until the advent of insulin 25 years ago that the situation began to change in a revolutionary way. Now, only about 3 per cent of deaths are in coma. Patients are living much longer so that among 651 deaths from 1944 to 1946, the average age at death was 64.5 years after an average duration of diabetes of 14.1 years. Actually these figures err on the side of being conservative be-

cause they do not take into account the large number of living diabetics who have had the disease more than 14.1 years. Diabetic children are living on and on for the first time in the world's history and in our group, cared for particularly by Dr. Priscilla White, there were on January 1, 1946, 249 who had survived 20 or more years of diabetes and the number is now well over 300.

The above statement of events is most encouraging and testifies as to the remarkable efficacy of insulin. However, those close to the problem of diabetes are far from satisfied because as the chief enemy of the diabetic one now sees in place of coma, the degenerative complications, chiefly arteriosclerotic in nature, which produce distressing results throughout the body, particularly in the eyes, heart, kidneys and peripheral vessels. The chief problem, therefore, in the present day treatment of diabetes is the postponement or prevention of premature arteriosclerosis and its sequelae. Any physician who sees a diabetic patient must keep this prominently in mind. He must not only attend to the details of treatment which concern the immediate present but also plan therapy along broad, general lines for the future.

#### Careful vs. Partial Control of Diabetes

In recent years there has been a growing tendency in certain quarters to deny or to minimize the importance of careful control of diabetes as judged by tests for sugar in blood and urine. It has been said that hyperglycemia and glycosuria are not harmful as long as acidosis is not present and as long as the classical symptoms of diabetes are kept in abeyance. In practice this means that patients are allowed much freedom as to type and quantity of food and are taught to have relatively little concern over the appearance of sugar in the urine, however large the amount. This plan of management may be superficially attractive from the standpoint of the patient because he is made to think less about his condition, is less liable to insulin reactions and is able to eat more nearly an average normal diet. It may be attractive to the physician

\*From the George F. Baker Clinic, Elliott P. Joslin, M.D., Medical Director, New England Deaconess Hospital, Boston.

†Read before the Seventy-first Annual Session, Arkansas Medical Society, Little Rock, April 19, 1947.



because of its simplicity and the greater ease of securing the patient's cooperation.

It has seemed to my associates and me and to many colleagues over the country, that the basic reasoning behind this form of management is fallacious. It is an accepted principle of the practice of medicine that, in a diseased person, one attempts to restore normal or physiological conditions as nearly as possible. Why not in diabetes? If there be any virtue in hyperglycemia or glycosuria, why does the blood sugar of the normal person remain within such narrow limits and why is the urine almost invariably free of sugar? But, comes the counter-argument, can you **prove** that, in the absence of acidosis, hyperglycemia and glycosuria are in themselves harmful? It must be admitted that at the moment it would be impossible to produce faultlessly controlled data to show that they in themselves are harmful to the human patient. However, all will agree that in the diabetic, hyperglycemia and glycosuria are but way-stations along the road which leads from normal conditions to acidosis and eventual coma. Is it not common sense to plan treatment so that hyperglycemia and glycosuria are abolished insofar as practicable in order to remove the patient as far as possible from the end-result of uncontrolled diabetes? Why have a halfway point as the aim of therapy? Fortunately, we now have concrete data, in addition to earlier findings of F. M. Allen, Best and co-workers and others to show that prolonged, continuous hyperglycemia is harmful. Recently Dohan and Lukens<sup>2</sup> of the University of Pennsylvania reported the development of hydropic degeneration of the islands of Langerhans and permanent severe diabetes in both normal and partially depancreatized cats. This followed the prolonged injection of glucose solution intraperitoneally with the maintenance of prolonged hyperglycemia.

Turning again to the human patient, one may ask the important question: "Is careful control of diabetes necessary or worthwhile?" Does the diabetic whose condition is well controlled live any longer or have fewer complications than those patients whose disease is only fairly well or poorly controlled? All will agree that the patient who is wretchedly controlled often encounters disaster in the form of acidosis and diabetic coma. Our discussion need not be concerned with the hazards of this degree of lack of control. That belongs to the days before insulin when, as already stated, prior to 1914, more than six of every ten deaths of diabetics were in coma. Our problem

now is to decide whether to strive for careful, even meticulous, control of diabetes, or to set as our goal simply the avoidance of frank symptoms and acidosis.

Those not intimately associated with the care of diabetic patients may well wonder why it is so difficult to demonstrate the ill effects of diabetes that is only partly controlled. If meticulous care is so important, why is it so difficult to demonstrate its benefits? In other words, why is it so difficult to settle this question which means so much to diabetic patients, who in the United States, according to latest indications, may number as high as one and a half million? This comes about because the degenerative complications of diabetes develop relatively slowly over years of time. In the present day, a patient who is only half-heartedly treated with diet and insulin may carry on for years in apparent health, supposedly demonstrating the effectiveness of a free-and-easy, lax regime. Thus it has become apparent to all careful observers that in order to evaluate the merits of this or that form of treatment, it is necessary that the patient be followed through 10, 15 or 20 years of diabetes. Conclusions drawn from a study of patients who have had diabetes for less than 10 years are apt not to be valid and, in general, are of comparatively little value.

This leads us to another consideration, namely, that if more than 10 or 15 years are to elapse from the onset of diabetes until conclusions are drawn, the person who is 50 or more at the onset of diabetes is not an ideal subject from whom to find an answer to our problem, since 10 or more years will bring him into the age group in which degenerative conditions, chiefly arteriosclerotic, are common in all individuals, diabetic or otherwise. The experimental conditions are not clear-cut, the end-result is confused by many extraneous factors and valid conclusions become difficult. Hence, in any study of the degenerative complications of diabetes one turns preferably to individuals with onset of the disease in childhood, adolescence, or early adult life, for in them the condition is seen in its purest form.

### **Degenerative Complications of Diabetes**

Now that 25 years have elapsed since the discovery of insulin, sufficient time has passed to permit a tentative appraisal of the results of therapy during this period. Dr. Priscilla White<sup>3</sup> has summarized such findings among 249 patients, previously mentioned, with onset of diabetes at the age of 15.0 years or under who on



January 1, 1946, had survived 20 or more years of diabetes. Of these, 237 were living and 12 had died. Among the 249, known non-vascular complications were as shown in Table I.

Table I

Known Non-Vascular Complications in 249 Patients With Onset of Diabetes At 15.0 Years or Under (To January 1, 1946)		
Complication	Number	Per Cent
Coma .....	94	38
Severe skin infections .....	63	25
Hepatomegaly .....	40	16
Retardation of growth and development .....	37	15
Neuritis .....	37	15
Pyelonephritis .....	22	9
Tuberculosis .....	6	2.5
Necrobiosis lipoidica diabetorum .....	4	1.6
Cataracts .....	4	1.6
Epilepsy .....	3	1.5

Impressive though this tabulation is, even more weight must be accorded the vascular complications listed in Table II. The presence of arteriosclerosis or its manifestations was determined by x-rays of the legs and pelvis to detect calcification of arteries, by physical examination including study of the optic fundi, by excretion pyelograms and by examinations of the blood and urine including tests of kidney function.

Table II

Known Vascular Complications in 249 Patients With Onset of Diabetes at 15.0 Years Or Under (To January 1, 1946)			
Complication	No. of Patients Studied	Patients With, Number	Complications Per Cent
Arteriosclerosis .....	154	106	70
Retinitis—			
Retinal hemorrhages .....	79	51	65
Retinitis proliferans .....	—	19	8
Hypertension .....	128	49	40
Albuminuria .....	138	46	35

It is, indeed, a striking finding that 70 per cent of these young adults, chiefly in the decade from 25 to 35 years of age at the time of tabulation, had recognizable arteriosclerosis in some form or other. This is not an isolated experience. Dr. A. L. Chute<sup>4</sup> of the Toronto General Hospital from a preliminary survey reports that the

incidence of degenerative disease is high. Similar trends have been reported by Dr. Hans Rosenbusch<sup>5</sup> from the Pediatric Clinic at the University of Zurich, Switzerland. Particularly distressing is the situation of those patients with extensive retinitis, including retinitis proliferans; at last tabulation, 40 of our children were, or were becoming, incapacitated because of failing vision. In the period from 1941 to 1946, of 76 deaths in patients with onset of diabetes at age 15.0 years or under, 26 were due to nephritis and other young patients now under observation have this condition in serious form. An all too common finding is the presence in the same individual of widespread vascular disease with retinitis seriously impairing vision; calcification of peripheral arteries and hypertension; and chronic nephritis (often intercapillary glomerulosclerosis) in a nephrotic phase with massive edema, lowered serum protein, reversal of the albumin-globulin ratio, azotemia and markedly impaired renal function.

This experience with youthful patients shows that diabetes causes premature arteriosclerosis. The exact manner of production is as yet not clearly understood but it is apparent that poor control is the general factor which is responsible. The complication is so common among young patients because of the usual severity and liability of diabetes in childhood and the extreme difficulty of maintaining good or excellent control over 15 or 20 years of juvenile and adolescent life.

Turning for the moment to older age groups, one finds that, whereas prior to 1914 63.8 per cent of diabetic deaths were in coma, in the period from January 1, 1944 to May 15, 1946, coma accounted for only 3.1 per cent but arteriosclerosis in its various forms for 66.6 per cent of 651 deaths.<sup>6</sup> These may be classified as follows:

Cardiac .....	44.5
Apoplexy .....	11.4
Nephritic .....	6.1
Gangrene .....	2.9
Site unassigned .....	1.7
	<hr/> 66.6

It is evident that both in the younger and older age groups, vascular complications have become the single most important problem in diabetes. All available evidence points to the fact that if these degenerative complications are to be lessened or postponed, the disease must



be as carefully controlled as possible. If one strives for 100 per cent control, one is bound to fall short of the goal because of human frailties and practical considerations. However, if one sets one's aim lower, the result is almost sure to be even less satisfactory.

### Treatment

Treatment today consists in supplying a diet calling for 160 to 200 grams of carbohydrate a day with perhaps 225 or even 250 grams for children. Protein allowances are set at three-fourths to one and one-half grams per kilogram body weight for adults and up to 2 to 4 for young, growing children. The fat content of the diet is set at that level necessary to maintain proper weight for height and age and with adult patients ranges from 60 to 120 grams daily. The diet should be so designed as to provide entirely adequate amounts of vitamins, minerals, bulk and roughage.

If, on a diet necessary for an individual to maintain normal weight and strength, the urine is not sugar-free or the blood sugar is not at a satisfactory level, then a single dose of protamine zinc insulin daily before breakfast is unhesitatingly prescribed. The dose of protamine insulin is adjusted to that level which will provide, on the average, a satisfactory blood sugar level and a sugar-free urine daily before breakfast. The dose must not be greater than this because of the possibility of insulin reactions in the early morning hours. If, on such a regime, the urine during the course of the day shows appreciable amounts of sugar, then crystalline or regular insulin is given also in the morning before breakfast with the dose so regulated as to provide before the noon meal a satisfactory blood sugar and a urine free or nearly free of sugar. If these conditions are met, the average patient will show negligible amounts of sugar in the urine during the afternoon or evening. If undesirable amounts of sugar are excreted, then shifting of food from the latter to the first part of the day are indicated. All patients on protamine zinc insulin receive a bedtime lunch of 10 to 15 grams of carbohydrate and often a similar mid-morning lunch as an automatic protection against insulin reactions.

In addition to an adequate diet and the proper dose of insulin, treatment should include regular physical exercise of an amount and type suitable for the patient concerned. Last, but by no means least, the patient should from the start be taught as much as his capacity will permit

regarding diabetes, its management and the prevention of complications. He should be taught that treatment must be continuous and that it is the day-by-day, year-in-and-year-out control that is truly effective. He should be taught that the aim of treatment is a sugar-free urine and a blood sugar which approaches normal although often practical considerations may make it necessary to fall short of this ideal. Only in this way can we hope to increase life expectancy still further and to lessen the incidence of degenerative complications, both in the young and old.

This statement is made with some confidence because it is our experience clinically that good control pays. Although in this discussion the gloomy side of the picture has been stressed, there is a happier aspect and the impression one wishes to leave is one of hope. Already in 25 years of the insulin era, miracles have been wrought and most of the more than a million diabetics in the United States are leading happy, useful lives. Even among the youthful patients after 20 years of severe diabetes there are notable examples of the good results of careful treatment. You will recall that of the 249 juvenile patients referred to earlier, only 12 had died and 237 were living after 20 years of diabetes in itself, a noteworthy and encouraging fact. Recently a man of 41 with diabetes of 27 years duration was studied carefully at the Deaconess Hospital and no evidence of arteriosclerosis found. It must be more than a coincidence that the diabetes of this patient was meticulously controlled during most of his diabetic life. One could point to other similar patients and all energies should be directed toward multiplying examples of this type. So great an opportunity for improvement in treatment exists that all efforts should be spent in that direction rather than in unwarranted and ill-founded plans of free and easy treatment.

### Summary

1. The chief cause of death among diabetic patients today, both young and old, is arteriosclerosis in its various manifestations.

2. With only partial control of diabetes, the degenerative complications, chiefly arteriosclerotic, affecting particularly the eyes, heart, kidneys, and peripheral vessels, become evident only after 10, 15 or 20 years of diabetes.

3. The incidence of recognizable arteriosclerosis among patients with onset of diabetes at 15.0 years of age or under, and surviving after



20 years of the disease, may reach as high as 70 per cent.

4. Available evidence indicates that by careful, continuous control of diabetes premature arteriosclerosis may be postponed.

5. Careful treatment consists of preventing glycosuria and significant hyperglycemia in so far as practicable by means of (a) a restricted diet, adequate in all essentials, so designed as to provide normal weight and strength and to avoid obesity; (b) insulin, if necessary, in adequate amounts daily, either as to protamine zinc variety alone or in combination with regular or crystalline insulin; (c) regular physical activity suited to the individual; and (d) education of patients in all features of home management.

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6. See reference (1), p. 229.

### INSTRUCTIONAL COURSE IN ALLERGY

The American College of Allergists has announced that its annual Fall Graduate Instructional Course in Allergy will be given in Cincinnati, Ohio, November 3-8 inclusive, under the auspices of the Medical College of the University of Cincinnati.

The course is recommended to all those especially interested in allergy, and to the general practitioner and specialist who anticipates treating his own allergic patients. It is designed to provide a more comprehensive understanding of the many manifestations of allergy so commonly encountered by the doctor, and to emphasize methods of diagnosis and treatment so that the physician is prepared to offer the greatest aid to his patient.

Programs and complete information can be obtained by writing to the College Secretary, Dr. Fred W. Wittich, 423 La Salle Medical Building, Minneapolis 2, Minnesota.

### MEDICINE AND CIVILIZATION\*

LEWIS WEBSTER JONES, Ph. D.†  
Fayetteville

I am delighted to be with you on this commencement day. We are met to honor those who have earned the B.S. and M.D. degrees, important milestones on the long and arduous road of medical education: We congratulate them, and wish them well. Our congratulations and thanks are also due to the doctors and citizens of Little Rock who have built up this medical school to its present stature, and especially to the Pulaski County Medical Society, and the State Medical Society, whose members carried out the teaching duty which physicians have always assumed since the day of Hippocrates, at first with little help or encouragement either from the state or the university. I am very glad that those early conditions have been outgrown, and that the Medical School is now an integral and most important part of the University of Arkansas.

The health and welfare of the people of Arkansas are closely dependent on the quality of the medical personnel which the state can train, attract and keep. The education of competent doctors and other health workers is surely one of the most valuable functions of a university which was founded to serve the state. And I believe that modern medical education, with its combination of theoretical, clinical and humane studies sets a standard which might well serve as a model for other types of professional training in the university. In medicine, more than in any other field, we come near to achieving the ideal of modern liberal education; to train men and women who can apply knowledge to good ends.

For you who are graduating today, the long process of learning which gives you the right to practice the noblest of professions is not yet over. In a very real sense, it never will be over, as long as you live and work. Scientific knowledge keeps advancing, and transforming medical practice, so that the doctor must keep abreast of it. And he constantly gains and grows in judgment and experience as he applies his art. Here again, medicine exemplifies an educational ideal: that education should continue as long as life itself.

It is a great satisfaction to me personally to

\*Commencement address, University of Arkansas School of Medicine, Little Rock, June 23rd, 1947.

†President, University of Arkansas.



re-establish a close connection with medicine, into which I came as an interloper from the field of economics some 18 years ago. I had the privilege of working with a group of physicians and social scientists under the leadership of Dr. Ray Lyman Wilbur; and I worked especially close with Dr. Roger I. Lee of Boston, from whom I learned much.

Since then, I have shared some of the prejudice of the M.D. against the mere Ph.D., and deplored the use of the title "doctor" for both. It led at that time to some embarrassment; when I was called out by an agitated husband in the middle of the night to attend his wife, who was in the throes of some undefined crisis. So great was his agitation that it was impossible for me to explain that I was not that kind of a doctor and certainly I did not represent the medical specialty which I feared he was looking for. To my relief, it turned out to be a case of plain hysterics, with which even an economist can deal in some fashion. I don't claim to have applied the most approved therapy.

But apart from this one untoward incident, I have always been grateful that I had occasion to devote some years to the consideration of the social and economic aspects of medicine, and to read a good deal of medical history. It is, I believe, one of the most illuminating approaches to the study of human civilization; so much so that I should like to see medical history included as a part of general liberal education, certainly for pre-medical students, preferably for everybody. Many of you, I am sure would heartily endorse the idea of training your prospective patients to be more intelligent consumers of scientific medicine. Young doctors just starting in rural practice have often complained to me that they are expected to diagnose patients by means of one telephone call, or to give a name to every condition and treat it by a specific pill, a pink one for this and a green one for that. But I'm not talking only of the immediate, practical desirability of having better educated patients. Much more important is the fact that medical history, medical lore, has great cultural richness, and affords a key to the understanding of past and present society which I should like to see more widely shared.

It is not too much to say that modern civilization would not continue to exist, and could never have come into being, without modern medicine. In the last 200 years the biological basis of human society in the western world has been revolution-

ized. There are far more people alive today than ever before, and they live on the average much longer. Until about the middle of the 18th century, populations grew very slowly, perhaps doubling themselves in 400 years. In the 19th century, the increase in western Europe and its biological extension into North America was spectacular and unprecedented. The average length of life 150 years ago was under 35; now it is over 60. I think that the 19th century cannot be understood if we forget this phenomenally rapid population growth on which it was based; and I think that our contemporary ways of looking at things are deeply influenced by the increase in the average life expectancy. We feel much more secure than our forefathers could; we have few children, but expect to rear them. But we don't always remember that it is to medicine that we owe this new security.

As a matter of fact, we owe much more than that. It is a sobering thought that, but for the improvements in medical care which began to be effective about the middle of the 18th century, we should not be holding this commencement ceremony tonight. Most of us would not have been born, for the very good reason that our ancestors would have died in infancy. Writing in 1776, Adam Smith remarked that "it is not uncommon . . . for a mother who has borne 20 children not to have two alive." Nor was it uncommon, of course, for mothers to die in childbirth long before they had achieved 20 children. If these conditions had continued, many of our ancestors would have succumbed to smallpox, summer diarrhea, typhoid or cholera, or they would have appeared in the 18th century bills of mortality under the common cause of death, listed simply as "suddenly." The particular combination of genes which has gone into the make-up of any one of us would most probably not have occurred but for Jenner's introduction of vaccination, and the many improvements in child care, obstetrics, general hygiene and sanitation we owe to the new medical education of the 18th century. It was Herman Boerhaave's method of teaching which began the transformation. He founded the first medical school with a hospital for clinical teaching at Leyden, at the end of the 17th century. Some of his students established the Edinburg school on similar lines in 1725. From these centers of medical instruction was spread the new spirit of practical, experimental and scientific interest in treating and preventing sickness which slowly transformed medical practice and greatly reduced



the death rate, in the succeeding century.

If our modern civilization is distinguished from all others by its use of science, then surely medicine was the pioneer in building it. True, these early "modern" doctors had none of our scientific knowledge; but they had the scientific spirit. They proceeded by careful clinical observation, they experimented, they applied their growing art to the improvement of human life. They were great teachers, great reformers. They combined theoretical studies with immediate practical usefulness, fighting ignorance, dirt and prejudice fearlessly. They worked out better hospital sanitation, attacked the dreadful Jail fever which used to kill off most of the prisoners even before they came to trial. They revolutionized midwifery, hitherto thought beneath the notice of a respectable physician.

These early advances, which were so important in starting the period of rapid population growth, because they cut down the death rate among children, were largely empirical. No great theoretical discoveries were made. Public sanitation made its gains without benefit of the germ theory of disease. The industrial revolution in England had led to an enormous growth of towns, and the new urban population brought with them village habits. Some of the early practical reforms brought dire consequences. That great British invention, the water closet, simply increased the pollution of the Thames, the source of London's water supply. But the heroic efforts of men like Chadwick in England and Shattuck in Massachusetts, in the 1840's and 50's, did much to improve public sanitation, and to check the tendency of the towns to draw in and kill off a constant stream of country people.

It is ironical to note that we owe many improvements in the art of saving lives to the influence of wars. Military and naval medicine have an impressive record. This is probably because it is in war time that governments have a vital interest in keeping their soldiers and sailors alive and healthy, and also have the power to apply medical knowledge on a large scale. In any case, the effects have often been far-reaching. Thus the use of lemon juice to combat scurvy in the British navy can be cited as the main cause of the defeat of Napoleon's forces at Trafalgar, which saved Europe from that earlier attempt at one-man domination. We have seen similar advances in the recent world war, especially in the control of tropical diseases, and in the progress of psycho-somatic medicine.

The advance of medical practice which began

with the improvement of medical education in the 18th century has continued and accelerated, and the 19th century saw a steady decrease in the death rate. For a long time, the individual doctor was still the source of many significant contributions to medical knowledge and there are some enthralling stories of discovery in this period. I particularly like the American army surgeon, Beaumont, who came across an Indian with a large gastric fistula, and pursued him all over the country in spite of the obstructive behaviour of the Indian's wife. He managed to make valuable contributions to the study of digestive processes through observations of the exposed stomach. The controversial history of the discovery of anesthesia is another such fascinating case. And the romance of more recent conquests of disease, like the story of yellow fever, has appealed to the imagination of all of us.

But the outstanding development of the last 75 years has been the increasing reliance of medicine on the related sciences. The germ theory of disease, for an obvious example, has revolutionized medical practice. The ordinary physician may still make occasional contributions to medical knowledge, but for the most part we rely on highly organized, highly specialized research. Modern scientific medicine is a relatively new, rapidly changing, exceedingly complex thing, which makes modern medical education and practice very different from what they were in our grandfather's day, and which poses many new problems for medical organization.

Though medicine could not exist as we know it today without these highly developed sciences, it is important to remember that the practice of medicine is still an art, and will always remain so. The key figure remains the individual physician, through whom this scientific knowledge is brought to bear on the diagnosis and treatment of an individual patient. Science is abstract, art concrete. The doctor has the difficult task of making concrete judgments, and acting upon them. This, I think, is a very humanizing, civilizing influence. The doctor can't spend his time contemplating beautifully neat scientific generalizations. He has to act responsibly in regard to a particular patient, who is much more than a diseased thigh-bone or a case of measles. He is a person, living in a particular family, in a particular village or town, filled with all sorts of worries, hopes and fears which the doctor must include in his diagnosis and therapy. It is this peculiar role of the physician, who must be



priest, philosopher and friend as well as technician, which makes medicine such a difficult but inspiring profession.

You are all familiar with the saying of Hippocrates that: "Life is short, and the Art long; opportunity fleeting; experiment dangerous; and judgment difficult." This aphorism may be hackneyed for medical students; but it expresses a truth which many laymen forget when they talk of "scientific medicine." I think that the reason why you still take the Hippocratic oath, the reason why Greek medicine still has so much to say to us, is that it was the one aspect of Greek learning which did not set itself apart from practical affairs. Greek science failed to advance, Greek philosophy and art became sterile after a period of marvelous inventiveness, and Greek civilization declined. All these branches of learning deliberately ignored the practical productive pursuits of men, as being degrading to true scholarship. Medicine alone devoted itself to humane practical application.

Modern medicine has revived and carried on the Hippocratic tradition. But one of the dilemmas of our contemporary civilization is that we lack a similar tradition to guide us in using other branches of our immense heritage of scientific knowledge. Health is a value we all understand. The function of medicine is clear; to serve life and promote health. Medicine is a bond of international understanding; even in wartime, it retains its humane function, and the enemy wounded are treated without question in military hospitals. Where else are we as wise? We are much more successful in organizing our great technical resources for the destructions of war than in building up a prosperous and peaceful world society. We have grown into a habit of mind which is more receptive to the idea of developing mineral resources than developing men and women; of building and making things rather than of building and enriching lives.

This is something which worries educators a great deal. How can we cope with all the vast mass of technical knowledge which is the outstanding intellectual achievement of modern man, and yet not lose man himself in the process? Over and over again we hear the complaint that higher education is training technicians, not citizens who know how to use technical knowledge for good human ends. I have already said that I believe we can learn much from the example of medical education. Fifty years ago it still consisted in this country of a kind of apprenticeship system, the young

doctor working with an older one, and perhaps attending for a few semesters at didactic lectures. Medical education has, however, been remarkably, I think uniquely, successful in adapting its procedure to the requirements of increasingly specialized scientific knowledge, while retaining the valuable concrete emphases of clinical and practical training. In spite of increased technical demands, it has never lost sight of the fact that its business is to train men who can exercise judgment in complex human situations. I don't mean to imply that medical education is perfect, or without problems. We are all familiar with the criticism that medicine has become so specialized that the patient is in danger of disappearing as a whole man, and has to present himself in the role of an isolated ear to one doctor, a disembodied pain in the middle to another. Increasing technical knowledge has also threatened to push general liberal education for medical students into the background. But the leading medical schools have been more sensitive to these dangers than have most of the professional schools, or even than some of the liberal arts colleges. Some medical schools have placed emphasis on a broad cultural training for undergraduates, rather than work exclusively in the sciences. They have also shown inventiveness and adaptability in using the time-honored clinical method even where several medical specialties, sometimes including psychiatry and social work, are brought together in the consideration of one case. In short, they have not forgotten that synthesis and integration must necessarily go along with specialization.

Medicine moreover has the great advantage that while it is highly scientific, its practice is necessarily a liberal and humane profession. There are other callings which deal with people, for example, law and the ministry; but these are not scientific; while most of the scientific callings have little to do with people. Medicine is in a unique position, because it combines both the scientific and humane traditions which are our finest heritage from Greece and Christianity. It is because of this, no doubt, that the medical profession has produced so many good philosophers and literary men. I know that physicians sometimes become swamped with routine work, and, like the rest of us, they can become tired and dull men. But there are many notable expressions of a fuller and more rewarding experience. Think of some of the excellent writing which has come from the pens of medical men.

William Carlos Williams, a hard-working gen-



eral practitioner who has carried a load almost beyond his strength during the war years, is one of our foremost poets. Oliver Wendell Holmes and William Osler were great literary men. Somerset Maugham began his career as a doctor, and found it a valuable part of his literary education. Keats, too, was a medical student, though I don't think he liked it much. I am not suggesting that all of you ought to become poets and essayists in your limited spare time; but I am saying that the study and practice of medicine embody a great humane tradition, out of which also great literature has been born. The physician has often a deeper insight into human existence than most men are privileged to achieve. He lives with the stuff of drama, he sees the beginning and the end of life. Contemporary thinking is perhaps too little concerned with death, rather shallow and inadequate in its understanding of the human situation. If this is due to the medical advances which have increased the average length of life, then perhaps it is unjust that medical men are less adversely affected than the rest of us. It remains true that doctors have more chance of achieving wisdom than, let us say, research chemists. I doubt if chemistry has produced a William Carlos Williams, or a novelist as good as Dr. Cronin. I don't say this in criticism of chemists, but rather in praise of medicine. It is a profession which you graduates are indeed fortunate to enter.

I should like now to consider some of the practical problems involved in making full use of modern medical knowledge. Medicine has long since outgrown the stage when the individual doctor could practice his art with a few simple tools, relying mainly on his own skill. The general practitioner is still the key figure, and the most important element in good medical care. But he has to cooperate with specialists, he needs access to good hospital and laboratory facilities, good nursing and public health work. If we are to attract and keep competent doctors in Arkansas, we must give them the facilities they need to practice modern scientific medicine.

As long as research yields new discoveries, there must of course always be some gap between what we do and what we know how to do. But everybody knows that the gap today between medical knowledge and its full utilization is wider than it ought to be. The generally low standards of health throughout the country were dramatically revealed by the figures for draft

rejections. People in Arkansas and other parts of the country still suffer from diseases and defects which we know how to prevent, still die from conditions we know how to cure.

Medical care, like education, is a basic necessity, something strongly "affected with a public interest." Germs are notoriously democratic, and not at all exclusive. None of us can afford to be indifferent, if any of us are ignorant or ill. Ignorance and illness are a burden to the whole community. Every year, an enormous amount of production is lost through absences due to preventable illness, to say nothing of the unrecorded losses and misery due to low energy and vitality. In short, if the costs of providing good medical care come high, the costs of not providing it come infinitely higher.

We have long recognized this fact in providing public funds for the control of communicable disease. Our very success has shifted the problem of prevention from gross manipulation of the environment to care for the individual: the leading causes of death today, heart disease and cancer, cannot be reduced by further improvements in public sanitation. Every aspect of medical care, both in public health and private practice, has become increasingly pervaded by the idea of prevention of illness, and the positive promotion of health. In this, the individual doctor treating the individual patient has to play an important part. I am glad to see that the plans for the development of this medical school include a cancer pavilion, and probably some specialized study of the disease of middle and later life, important and growing medical fields to which Arkansas might make useful contributions.

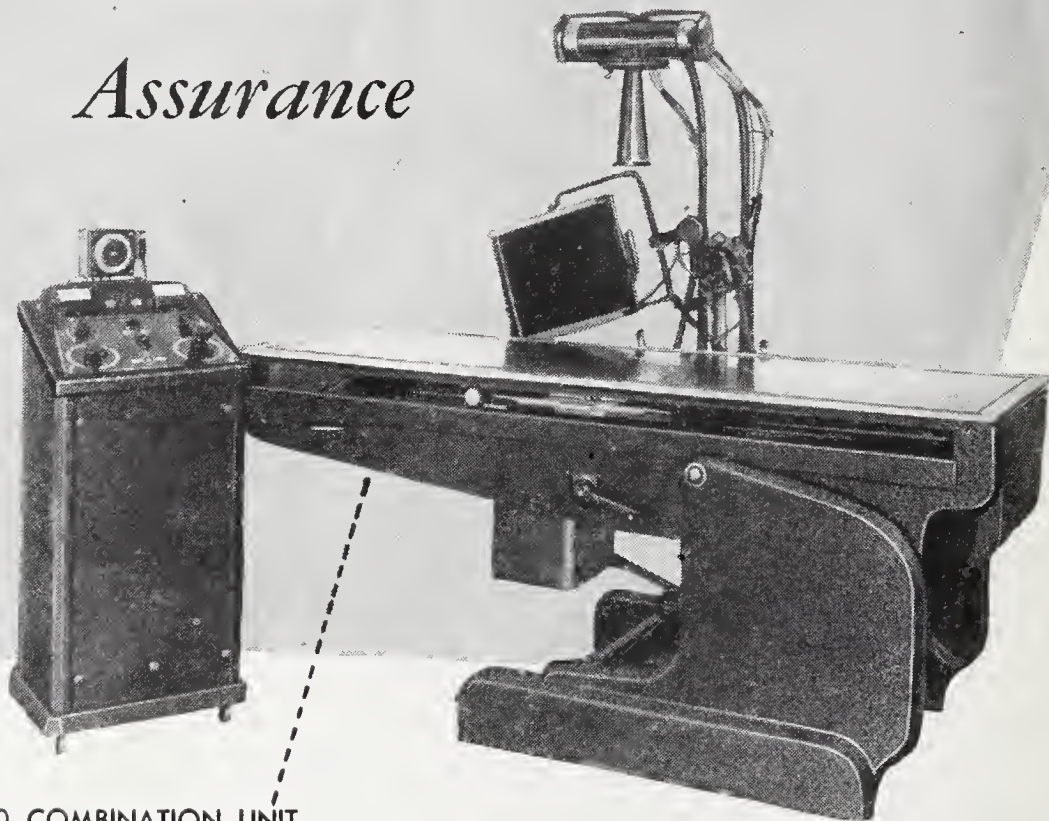
Sir William Osler asked that his epitaph should be: "I taught medicine at the bedside." This statement illustrates the close connection which has always existed between medical education and medical practice. I have already talked a good deal about the influence of improved medical education in the 18th century on our whole modern development. Today, the connection is even closer, more far-reaching and more complex. You can't give doctors a first class training without first class hospitals and laboratories, without a medical center for the co-ordination of specialists, pathologists and medical research. Nor can you give first class care to all types of patients without these same facilities. Once trained, the doctors again need these facilities in order to practice scientific



# Diagnostic Certainty . . .



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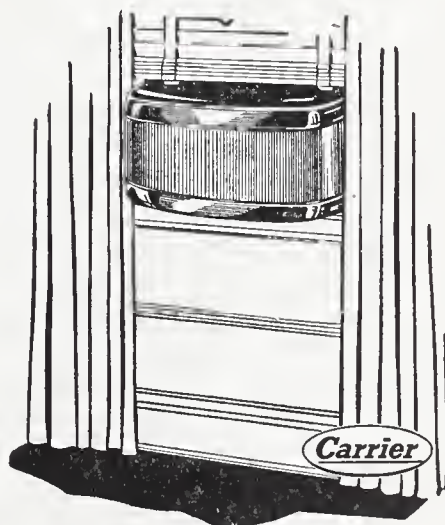
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medicine, and to keep up with medical advance.

The Veterans Administration in Washington is perfectly definite on the point that good medical care and medical education cannot be separated. But wherever the Medical School is located, its campus and its usefulness will be statewide.

This commencement has unusual significance because it marks a turning point in the development of medicine in Arkansas. The School of Medicine is entering on a new era of service to the people of the state. Plans call for the development of a medical center which will include a first class staff of full-time physicians for teaching and patient care; a school of nursing, and training for other types of medical personnel; post-graduate training and specialized instruction to be available throughout the state; the provision of laboratory and research services on a statewide basis; and in general the fullest cooperation with the State Department of Health, the hospitals, the federal government and the Arkansas Medical Society in everything which will contribute to an excellent standard of medical care for all the people of the state.

As president of the University of Arkansas, I am inspired by the possibilities of service to the state which are embodied in the plans for the Medical School. These plans have my full and enthusiastic endorsement, as an example of the kind of education combined with public service which a state university ought to strive for. I am also much interested in the opportunity the University has of pioneering in the solution of some of the important problems of contemporary education, by bringing professional and general liberal education into closer relationship. We shall try to make sure that pre-medical students get not only the scientific training, but also the other things they need to prepare themselves to be effective doctors, citizens and medical leaders.

As we honor these graduates tonight, I think we should also take this opportunity to honor Dr. Chenault and his colleagues at the Medical School. The State of Arkansas is indeed fortunate that this son of the University of Arkansas Medical School has returned, after many years of service in the U.S. Army, to devote his talent, his courage and foresight, to the cause of medicine in this state. I don't know how much the State of Arkansas invested in Dr. Chenault's medical education, but I am sure the investment is now paying off handsomely.

I hope that most of you who are receiving

your degrees tonight will stay in Arkansas, and that the state will give its full support to the Medical School, and to the development of the Medical Center, to the end that you will have the facilities which make good practice possible. Here in Arkansas we have the opportunity to build a medical organization adapted to our own needs, but of which any state might well be proud. I hope that we can attract some private funds; and I am very sure that any funds, public or private, invested in health will be well spent. The Medical School is going forward, the University is going forward, the State of Arkansas is going forward. The kind of leadership we are getting at the Medical School exemplifies the kind of leadership we want for the whole University. Education and health are too important for us to allow them to be influenced by petty or narrow considerations. Just as we need a bi-partisan foreign policy, we need a non-partisan educational and medical policy. And we expect of you graduates, who are entering the medical profession, the devotion to public service which has always distinguished the great physicians, and which is the meaning of the Hippocratic Oath.

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The International College of Surgeons, United States Chapter, will hold its 12th Annual Assembly and Convocation in Chicago, September 28 to October 4, 1947.

The program will include operative and non-operative clinics, demonstrations, symposia, forums, medical motion pictures, exhibits and the formal dedication of the new library and permanent home of the United States Chapter. All meetings, with the exception of the operative clinics, will be held in the Palmer House and the Stevens Hotel.



## THE DEMOCRATIC PARTY AND NATIONAL HEALTH INSURANCE

On May 19th, President Truman renewed his plea that Congress enact a long-range public health program, including provisions for disability insurance. He said: "Protection against the fourth basic risk to the security of working people, sickness, is the major missing element in our national social insurance program." In addition to insurance against sickness, the President asked for adequate public health service, including an expanded maternal and child health program and more hospitals and more doctors, in all areas of the country where they are needed.

On May 22nd, the new version of the Wagner-Murray-Dingell compulsory health insurance bill was introduced in Congress shortly after the President's message. Like its predecessor, which expired last year despite the indorsement of President Truman, the new legislation provides for a nationwide system of prepaid medical service.

It becomes of further interest to note the comments of Gael Sullivan, Executive Director, Democratic National Committee, appearing in "Capital Comment," June 21, 1947:

"President Truman wants ALL of the nation to be healthy. Our first wealth is the nation's health. The President is backing a program for national health insurance that would serve all the people.

"Rich people can afford medical care.

"Charity cares for paupers.

"In between are millions, neither rich nor paupers, who cannot afford the kind of medical care they need. They do without.

"If Taft has his way they will continue to do without.

"President Truman's plan calls for a sensible 'pay-as-you-go' program."

The viewpoint of Democratic National Committeeman from Arkansas, R. B. Robins, Camden, is given in the following letter:

"July 2, 1947.

"Mr. Gael Sullivan,  
Executive Director,  
Democratic National Committee,  
Washington, D. C.

"Dear Mr. Sullivan:

"I have your bulletin of June 21, 1947 in

which you continue to urge the idea of compulsory health insurance legislation. To me and the people in my section of the country this is a very repulsive project of the Democratic Party.

"It is very well known that this is the brain-child of such radical social reformers as Michael Davis and Isadore Falk who would like to see our democratic system transformed into a totalitarian system.

"It seems to me that it is high time for the Democratic Party to stop pushing the philosophy of bureaucracy in our country. The present program seems to have as its ultimate object the destruction of the principle of self-reliance of the American citizen and making him more and more dependent upon the central government. This leads to the loss of freedom as it has in all of the nations which have tried it.

"The tax gatherer this year will take more than one-fourth of our national income. Yet, our Party continues to try to push programs that will increase his. The national health program which you are advocating is a compulsory program. There is no choice. It would build one of the greatest bureaus in the history of the world—a multi-billion dollar bureaucracy.

"I would like to see the Democratic Party get away from the philosophy of government paternalism and get back to the basic principles that made this nation great.

"I am looking forward to seeing you next Wednesday.

"Sincerely yours,

"R. B. Robins, M. D.

"National Committeeman."





## NON-CONGENITAL CATARACTS IN JUVENILES\*

RAYMOND COOK, M. D.  
Little Rock

Before presenting several case reports on cataracts in juveniles, I think it appropriate to make a few remarks on cataracts in general. Neither the etiology nor the mechanism of cataractous formation is known. Many theories, as you know, have been proposed, all of which have some foundation. Many factors have a determining influence, but is this influence upon the lens itself or upon the underlying malady which causes its opacification? Probably the causes of cataract formation are many and various and the attack on the transparency of the lens is in many different ways. However, I believe that the intricate mechanism of the metabolism of the lens is today the common denominator.

We make the statement that a cataractous lens is an "asphyxiated lens." Would you take issue with the fact that an asphyxiated lens is one whose metabolism has been curbed or seriously impaired? A congenital cataract substantiates the metabolic factor conclusively I believe.

A child is born, normal in all respects with the exception of an opaque lens. The lens is present, normal in size, in its proper position, and is ready to function in extrauterine life. In fact, it is identical to the lens in the opposite eye in all respects with the exception of transparency. I can not conceive of such a unilateral picture being caused by a deficiency in vitamins, minerals, hormones, or any other substance carried by the blood and other body fluids whose circulation is normal and equal in both eyes. Otherwise, there would be a maldevelopment.

By way of contrast, an example is cited approaching the other end of life's span. I have in mind a lady 75 years of age with a mature cataract in the left eye with no changes in the right lens. I have observed this patient for 10 years and it appears that until death she will retain the transparency of the right lens. The left lens in this elderly patient compares similarly with the lens in the newborn as far as vision is concerned. It is opaque; it is asphyxiated; it has lost its transparency. It is true that the microscopic anatomy and chemical properties of the two opaque lenses may be different, but

these properties would be equally different in the two transparent lenses of the individuals. Age, I believe, can not be blamed for the cataracts in this 75-year-old lady. Do not both eyes age at the same rate, yet one remains transparent? The metabolism of the cataractous lenses in both the elderly individual and the new born was disturbed. That factor which caused this disturbance is the unanswered question in the etiology of cataracts. At any age in life's span between the new born and the patient 75 years of age or older, cataracts may and do develop. I am reporting a few of these in which cataracts have developed in juveniles or in patients too young to be classified in the senile group. So far as is known, not one was born with any vestige of a cataract.

It has been my privilege to study five children from a family of eight. These children have developed bilateral cataracts. This family lives on a farm, are of average means, and the growth and development appear normal. Of the three children in the family who have not developed cataracts, one is a girl age seven, one boy aged 24 is in the regular Army, and one boy whose death occurred at age of 20.

Individually, the case reports are as follows: Clovis W., whose present age is 20, was the first of the family to have failing vision. This began at age 13 while he was in the fifth grade, and in a few months he could distinguish only light. A series of operations was begun, and the right eye was needled three times and the left eye two. In a period of approximately one year he returned to school and finished successfully. At the present time his vision is 20-20, Jaeger i, in each eye.

Olen W., whose present age is 16 began having poor vision at the age of 12, while in the fifth grade, and followed the same course as his older brother, Clovis. Within a period of one year he had three needlings on each eye, and was back in school. He is still in school, and his present vision is 20-20, Jaeger i.

Duffie W., whose present age is 13, suffered the same symptoms and course as the two previously mentioned cases at age 10, while in the fifth grade. She was the recipient of three needlings in each eye, and now has normal vision and is in the seventh grade.

Odessa W., who is now 18, escaped the same symptoms as the other members of her family until age 17, while in the ninth grade. She followed practically a similar course as the others, received three needlings in each eye, and was discharged with normal vision about one year

\*Read before Section on Ophthalmology and Otolaryngology, Arkansas Medical Society, Little Rock, April 18, 1947.



from the onset of her symptoms. She did not return to school.

Clodell W., age 11, was the last one to suffer the same symptoms as her brothers and sisters. Her trouble started about three months ago, and to date she has had one needling.

Another case is a boy age five who has in the past years developed a cataract in the right eye. The left lens is transparent, and an examination of his eyes two years ago revealed that both were normal in all respects.

Until two years ago, J. R., age 28, had perfect vision. The left eye gradually became blind, and when I saw him a mature cataract was present with posterior capsular changes present in the right lens. A linear extraction has been done on the left eye with excellent results.

The above cases were cited not because they are different from cases all of you have had, but to stimulate the idea that a cataractous lens is one whose intricate mechanism of metabolism has been disturbed, and the determining influence is no respecter of age.

HERBERT HALL McADAMS, aged 65, Jonesboro, died July 11th. A graduate of the Tennessee University College of Medicine, he began practice at Lake City in 1904 and moved to Jonesboro in 1912. He was a founder of the Jonesboro Clinic and established the Medical Arts Clinic with Dr. R. H. Willett in 1933. He had served as president of the Jonesboro School Board for several terms and was a member of the First Presbyterian Church, the Jonesboro Country Club and in addition to membership in the Craighead-Poinsett County Medical Society, the Southern Medical Association and the American Medical Association, was a fellow of the American College of Surgeons. Surviving relatives are his wife and three sons.

JAMES H. BENEFIELD, aged 80, died at Fort Smith July 10th of injuries sustained in an automobile accident. A graduate of Memphis Hospital Medical College in 1902, he had practiced medicine for 49 years and had lived in Sebastian County for 57 years. He was a member of the First Methodist Church, the Masonic Lodge, the Eastern Star, Amrita Grotto, the Woodmen Circle and of the Sebastian County Medical Society and of the Arkansas Medical Society. Surviving relatives are two sons, four sisters and two brothers, one of whom is Dr. C. E. Benefield of Fort Smith.

## VOVULUS OF CECUM AND ASCENDING COLON REPORT OF A CASE

W. E. JENNINGS, M. D.

Rogers\*

The rarity of acute obstruction of the large bowel due to vovulus of the cecum and ascending colon warrants the recital of the following case.

R. A., a 51-year-old white female, became acutely ill about 9 p. m., March 11, 1947. Onset of illness was marked by a sudden severe pain in the region of the umbilicus radiating to the right lower quadrant. There was an associated nausea, but no vomiting at the time. Between 9 p. m. and midnight the patient had several small liquid stools. Vomiting began about 1 a. m., at which time there was a considerable amount of distention. A large tympanitic mass was palpated just above and to the left of the umbilicus. Temperature was 99 degrees, pulse 100, and respiration 22.

Past history revealed little of importance except an appendectomy in 1927 and the habitual use of cathartics of many types ever since.

The patient was immediately admitted to the hospital but she refused surgical intervention. Duodenal suction and intravenous glucose in saline were instituted. Vomiting was relieved but distention remained. The mass above the umbilicus progressively increased in size.

At 9 a. m. on the 13th of March, 39 hours after the onset, the patient consented to operation. At that time her pulse was 130, temperature 101.2 and respiration 26. No flatus or feces had passed since admission to the hospital.

The peritoneal cavity was opened through a long midline incision. A greatly dilated and thinned out cecum and ascending colon, found in the left upper quadrant, were delivered. The bowel was found to be twisted upon itself in a clockwise direction, almost two complete turns. The mesentery was extremely long.

After untwisting the cecum and releasing numerous adhesions the normal intestinal color immediately returned. Since the condition of the patient did not warrant more extensive surgery, the abdomen was closed. The post-operative course was uneventful. Five weeks after the operation the patient was back at work, and until this date there has been no recurrence of the chronic constipation.



# TUBERCULOSIS ABSTRACTS

## *A Review for Physicians*

ISSUED MONTHLY BY THE NATIONAL TUBERCULOSIS ASSOCIATION

IT IS often overlooked that the ultimate control of tuberculosis will depend upon the effectiveness of the training given to the infected individual. Case finding in tuberculosis is of little value unless it is followed by treatment; to go to a sanatorium is not as important as to remain there until the disease is arrested; the permanence of the arrest in any case of tuberculosis is always a matter of personal discipline and vigilance. At every step of the road the physician must keep the conscious active cooperation of the patient. This comes about only when continuous education of the patient is carried on by the physician and those associated with him.

### THE CARE AND EDUCATION OF THE TUBERCULOSIS PATIENT IN THE HOSPITAL

The care of a patient in any institution is dependent upon the physical facilities of the hospital or sanatorium; the proper balance of staff; and the quality of the staff. An adequate budget is necessary but money is not the entire answer. A well-equipped sanatorium may still be a cold, unsympathetic place. There must be an esprit de corps that starts at the top and carries through to every worker in the place.

The importance of a proper balance of staff is self-apparent. There must be enough physicians, enough nurses, a satisfactory dietetic service, enough social workers, enough rehabilitation workers, and enough accessory attendants to carry on the work properly.

The quality of the staff will depend upon the training, the experience and the personal interest of every person who takes part. Adequate salaries are necessary to attract and hold competent personnel.

Preemployment training and experience are desirable, and training should be continued throughout the period of employment. There should be frequent and regular staff conferences, not for the physician alone, but for the entire administrative group, the nurses, social workers, and rehabilitation workers. Not only medical and surgical treatment, but problems of discipline, emotional instability and psychological approaches should be discussed. The staff should all learn to think as a unit. As a result, when a physician advises a patient and the patient asks the same question of the nurse or the social

worker, there will be agreement among them. Some may feel that only a doctor should discuss medical subjects, and that nurses, social workers, and others should always refer such questions to the doctor. That is true if the answers are difficult but no doctor ever loses prestige when his staff gives him informed backing and support.

In the treatment of tuberculosis the work of the doctor, the nurse, the social worker, and the rehabilitation worker so dovetail that they are frequently helping with the same thing. All four "practice medicine" in some way, whether it be in treatment, care, or maintaining the proper mental equilibrium of the patient. All four do a certain amount of nursing service. All four may be drawn into the domestic problems usually handled through the social worker. And all four take a part in rehabilitation. The direction and supervision of the work should be clean cut, but the better the understanding, the more effective will be the cooperation between staff members.

The care of the patient, then, does not depend upon physical facilities alone; it depends primarily upon the sympathetic understanding and cooperation of every person involved. This can only exist in a harmonious, well-trained, well-informed, interested, and intelligent staff.

The other half of the work is the education of the patient which is carried on through personal contacts of the staff, talks, and lectures, books and periodicals on tuberculosis, sanatorium publications and visual aids of all kinds. The educa-



tion of the patient starts with the day that the diagnosis is made. Then the first shock is received, and the patient's little world crumbles around him. Often he loses everything for which he has worked, saved, and planned. Usually he enters the sanatorium in a condition of mental chaos.

It is the job of every person who is in touch with this patient to sympathize, to help, to encourage, and to gain his confidence. The hope and assurance of recovery must be instilled, his family problems must be met, and his rehabilitation started at this time.

At first the patient is too stunned to appreciate or understand the rules of the game, but his education must start right at the beginning. It is important that the attitude of every staff member should be that of a teacher, giving the patient the hints and the rules which will be short cuts to recovery. Optimism should be the keynote.

When the first shock has worn off, the patient is in the mood to be a pupil in our school for tuberculosis. He will listen to other patients and get distorted ideas; he will listen to anyone and everyone. It is important, therefore, that his information be authentic. The lectures given, the books furnished, and the sanatorium publications all play an important part. If the staff is well trained, the questions can be intelligently answered. Each department head should take part of the responsibility for delivering talks and lectures.

The patient should be taught how tuberculosis develops, how it is diagnosed, and how it can be prevented. He should understand the different types of treatment and the objective of these treatments. He should be made to realize that his cure is within himself. He should be taught how the disease is spread and how to protect others. When this is done, we have reduced the hazard nearly 90 per cent. The patient should realize the importance of follow-up examinations long after discharge. He should know the length of time that it takes before he will be well, even after returning to a productive life. Too often the patient is discharged with a good prognosis from an institution, but because his education has been incomplete, he becomes careless and, as a result, his tuberculosis recurs.

The responsibility for patient education does not belong to doctors alone. It is the responsibility of every nurse, every social worker,

and every rehabilitation worker who comes in contact with the patient. The sanatorium should not be a jail, but it should be a school for the education of the patient, and discipline is just as important as medication and treatment. A well-educated patient who leaves the sanatorium with consent, and is well on the road to recovery, seldom breaks down again. It is the careless patient who didn't learn the lesson who comes back to be readmitted.

Let's Improve the Care and Education of the Tuberculous Patient in the Hospital, Howard W. Bosworth, M. D., Transactions of the National Tuberculosis Association, 1946.

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## RESOLUTION

Adopted by the Board of Directors of  
The American Society of Anesthesiologists, Inc.,  
June 11, 1947, Atlantic City, New Jersey

Whereas, the development and furtherance of modern anesthesiology is of great importance to the welfare of patients and

Whereas, anesthesiology is a component part of the practice of medicine:

Now therefore be it resolved: That the American Society of Anesthesiologists, Inc., recommends strongly:

(A) The establishment of departments of anesthesiology in all medical schools and hospitals under the direction of a doctor of medicine actively engaged in the practice of anesthesiology.

(B) That the department of anesthesiology shall bear the same relationship to the medical school and/or hospital as is borne by other medical departments of the institution.

And be it further resolved: That The American Society of Anesthesiologists, Inc., disapproves:

(A) Of the training of persons other than doctors of medicine in the science and art of anesthesia, for the assumption of responsibility in the care of patients where it may be necessary to exercise medical judgment, and particularly does it disapprove of the issuance of certificates for such training by its members.

(B) The existence of departments of anesthesiology in hospitals and/or medical schools under the direction of persons other than doctors of medicine or under the nominal direction of doctors of medicine not actively engaged in the practice of anesthesiology.



# THE JOURNAL

OF THE

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## EDITORIALS

### THE ARKANSAS HEALTH PLAN\*

The selection of the name "Arkansas Health Plan" for the new surgical-hospital care prepayment program and the appointment of Milton L. Daugherty of St. Louis to direct the program were among accomplishments of the past month.

Mr. Daugherty, who is a widely known health insurance executive, said that he expected to establish residence and open the Health Plan offices in Little Rock about August 15. The actual promotion of the Health Plan then will begin shortly after September 1, he said.

The new manager of the Arkansas Health Plan is a native of St. Louis and a former member of the Missouri bar. After legal, sales management and business experience, he entered the health insurance field nine years ago when he went with Group Hospital Service of St. Louis.

Three and a half years ago, he transferred to the Group Hospital Service of Alton, Illinois. The membership of the latter nearly trebled

during his association with it. He has had considerable experience in the development of rural health programs both in Missouri and Illinois.

He has been a member of the Rotary for many years; he is a director of the Big Brother Movement in St. Louis and of the Thomas Dunn Memorial Home for Boys, and he helped organize the International Big Brother Movement and the much-publicized Cardinal Knot-Hole Gang. He is widely known in St. Louis and in national health insurance circles.

Mr. Daugherty is married and has two children, a son and a daughter, both grown.

Details of the program for forwarding the Health Plan as rapidly as is consistent with sound progress were developed at a meeting of the members of the Joint Committee of the Arkansas Medical Society and the Arkansas Hospital Association with John R. Mannix of Chicago, president of the John Marshall Insurance Company, which is underwriting the program.

Mr. Mannix said that, on the basis of previous experience, one of the most difficult problems of the next few months probably will be that of training the necessary personnel rapidly enough to meet the anticipated demand. More than 200 applications for positions with the Arkansas Health Plan already have been received, he reported.

As a man with broad experience in the development and operation of health care plans, Mr. Daugherty thus will face the immediate task of interviewing Arkansans who wish work with the new organization. He will seek to develop his staff entirely from applicants who are residents of this state. While organization of the staff is under way, Mr. Daugherty also expects to begin actual enrollment of groups wishing to obtain the protection to be offered by the Health Plan.

Mr. Mannix stated that the interest already expressed is remarkably widespread. Promising that every effort will be made to advance the program with all possible speed, he asked the patience of doctors and hospitals until the basic organization is completed.

With preliminary arrangements completed for the opening of the first office in Little Rock, he said that present plans call for other offices in Hot Springs, Jonesboro, Fort Smith, Pine Bluff and El Dorado. He estimated that all of these offices would be in operation in approximately a year, with full-time personnel assigned to each. Both the degree of interest shown locally and the geographic location will influence the sequence in which the additional offices will be opened, he added. Additional offices and

\*Prepared by Chas. R. Henry, Chairman, Committee on Medical Service and Public Relation.



facilities will be developed if needed and as the experience of the plan dictates.

Mr. Daugherty told the committee that he hoped to enroll the first group in the new plan during September. This means that it will be October or November before the first plan members begin to enter the hospitals or become eligible for surgical benefits, it was pointed out.

The method of enrolling an employed group, which also is basically the method used in enrolling farm and similar groups, was explained by Mr. Mannix as follows:

The initial step, after officials of the group have decided that the enrollment is to be undertaken, is the distribution of literature and application cards. The cards subsequently are collected and from them the employer prepares a list of the amounts to be deducted from each employee's pay to cover the cost of the type of protection he has chosen. The necessary amounts are deducted from the next payroll and forwarded to the insurance company, which issues a certificate and identification card to each enrolled employee. The issuance of these items completes the actual enrollment.

In practice, it was explained, a month or more often is required before the employer can make the pay deduction, prepare his records and forward the necessary information to the Health Plan, and for the completion of the other details in the cycle. "The necessity for these details often is not understood," Mr. Mannix commented. "However, they are highly important to the successful operation of the Plan."

"For our part, we want this program to operate as a true service to the medical profession, the hospitals and the people of Arkansas, and we will endeavor to build it so that it will serve this purpose fully and permanently. That means that the groundwork must be completed properly. We will build as rapidly as we can, but we will do our best to build adequately and solidly as we go along."

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## VETERANS ADMINISTRATION PROGRAM\*

The Veterans Administration medical program is expanding in Arkansas as it is throughout the nation.

There are two underlying reasons for the general growth. First is the physical fact that many hundreds of thousands of veterans returned

from the armed services during the last two years with disabilities which require prompt hospital care. It is estimated that we now have approximately 20,000,000 veterans in this country, or four times the number following the First World War, and many of these veterans will require medical care and services authorized by law. The second reason for growth is the determination of Gen. Omar N. Bradley, administrator of veterans affairs, and Dr. Paul R. Hawley, the chief medical officer for the Veterans Administration, to give ex-servicemen and women who need it "medical service second to none."

Dr. Hawley, immediately after appointment, instituted a program for increasing the quantity and improving the quality of Veterans Administration medical service to veterans.

At the beginning of the present program of expansion Arkansas had two VA hospitals, one of 250 beds at Fayetteville for general medical and surgical patients, and one at North Little Rock for 1,379 neuropsychiatric cases. Already under construction is a 640-bed addition to the North Little Rock institution, and plans are now being drawn for a 500-bed general medical and surgical hospital to be located in Little Rock.

That expansion, typical of the national scene, has necessitated a great increase in the medical staff. Within the past year the VA has increased the number of its fulltime physicians from 2,300 to 5,000.

To assure quality in its increasing staff, the Veterans Administration has outlined a program which will be attractive to the highest caliber of medical personnel.

Points in that program, as outlined by Dr. Charles H. Beasley, wartime chief surgeon of the Advance Section in the European Theater, and now branch medical director for the VA in the four states of Missouri, Oklahoma, Arkansas, and Kansas, include:

Affiliation with the leading medical schools of the area so that the staffs of veterans' hospitals may keep abreast of major developments in medical science.

Establishment of a continuing educational program for all fulltime staff members, giving them the advantages of lectures by specialists among their own fulltime personnel and from parttime consultants associated with the VA hospitals.

Use of the best and most modern diagnostic and therapeutic equipment in all divisions of VA hospitals and clinics, permitting research as well as the best possible medical care.

Nor has the VA overlooked the financial aspect in seeking more and better qualified doctors.

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\*Prepared by Public Relations Division, Branch Office No. 9, Veterans Administration, St. Louis.



Salaries for fulltime VA physicians now range from \$4,149.60 to \$11,000 annually. Regular pay increases within grade are provided for all VA physicians, along with opportunities to advance to higher grades by improvement of qualifications.

Retirement provisions are similar to those of civil service, five per cent of salaries being used toward building a retirement income. Time served in the armed forces is credited toward retirement.

Schedules also have been worked out to assure doctors more regular hours of service in VA hospitals and clinics.

A search for physicians is continuing, Dr. Beasley said. He advised physicians interested in investigating the opportunities of the service to write any VA regional office or hospital, or to the four-state, Branch Office No. 9 at 420 Locust Street, St. Louis, Missouri.

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#### VETERANS ADMINISTRATION MEDICAL CARE PROGRAM IN ARKANSAS

This issue of The Journal contains a short statement relative to the program of the Veterans Administration in the state. In the short time that the agreement between the Arkansas Medical Society and the Veterans Administration has been in effect, few complaints have been received over the operation of the plan.

It is apparent that the Veterans Administration is now committed to a policy of having all general physical examinations for evaluation of disability made within regional offices of the Veterans Administration rather than by private physicians as was originally contemplated. Under this procedure, the professional services of members of the Society sought will doubtless be confined to specialist examinations.

The home-town care program, however, is in no wise curtailed and it is likely that referred cases of veterans with service-connected disabilities will increase in the months ahead.

As is true in any field of governmental activity, especially when federal funds are expended, there are perhaps an unusual number of forms to be completed. These do not appear unduly complicated and it is felt that members of the Society who accept patients for care under this program can materially decrease the difficulties attendant upon proper completion of

the necessary forms and insure prompt payment of the allowed fees for service if they will carefully follow the instructions which accompany the forms.

The Journal is informed that each physician who has expressed a desire to participate in the program under the contract between the Arkansas Medical Society and the Veterans Administration has been furnished with a copy of Veterans Administration Manual—"Instructions to Fee Basis Doctors." It is suggested that this be read carefully and kept convenient for reference. In the event this manual has not been received, request for a copy should be mailed to the Regional Medical Officer, Veterans Administration, Federal Building, Little Rock. Members of the Society who have not heretofore expressed a desire to participate in the program may do so by so advising the state society secretary.

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#### EDITORIAL COMMENT

##### FREQUENCY BANDS FOR MEDICAL DIATHERMY EQUIPMENT

Medical diathermy equipment may be operated on the 13.66 megacycle, 27.32 megacycle and 40.98 megacycle bands without license, according to Public Notice No. 7722 of May 9, 1947, released by the Federal Communications Commission. No limit is given to the power output that may be radiated. Diathermy apparatus operated outside the assigned frequency bands above shall be completely shielded and filters placed in the power line. The commission will determine if the diathermy equipment is not operating in compliance with the rules and in such cases will notify the owner, who is responsible for making the changes to prevent interference.

All equipment manufactured before July 1, 1947, will not be subject to the new regulation for a period of five years (June 15, 1952).

A special band at 2450 megacycles has been made available for industrial, scientific and medical purposes. This is to allow the production of experimental machines of extremely short wave length—approximately 12 centimeters long. Such machines have not been used by the medical profession up to the present time. However, this channel may be subject to development in later years as the medical profession either accepts it or not.



## RANDOM THOUGHTS OF THE SECRETARY

June 28th. By Piper Cub to Clarksville and then a more thrilling ride in Earle Hunt's new Pontiac to Little Rock, joining Eubanks and Fay Jones for the ride on to Prescott, the conversation on this leg of the trip being confined to discussion of "rebound" as a physiologic phenomenon. At Buck Lodge, the many are gathered as guests of Al Buchanan and the party goes on in much joy until morning, highlighted by the repartee of Bob Robins, Paul Mahoney and Joe B. Wharton.

June 29th. With the early-rising Mahoney, Kilbury and Harry Hayes back to Little Rock and aboard the Missouri Pacific for a shortened train ride to Van Buren yards, discovering there for the first time of the day that temperatures have risen.

July 6th. Then too, those "saucers" could be the blue chips Hot Springs is throwing around to get the medical school.

July 9th. There may be nothing new under the sun but today we saw a blind man with tin cup in hand walking down the street, a portable radio hanging from his chest furnishing the music appeal to passersby.

July 10th. With Goldstein to arrive late at the Benton-Washington County Societies picnic at Springdale, the guests having well partaken of the repast and we are forced to observe the pathetic spectacle of Goldstein striving at the center of the table to eat as the ladies remove what is left from each end. In the discussions, Gay talks of injuries to the jaws and Smith briefly speaks on the future of the medical school but becomes verbose on the activities of the secretary at Atlantic City.

July 12th. Paying last tribute to John Burns, the genial host of Burns Gables atop Highway 71, who ever sought to be a "friend to man."

July 14th. Note on the official end of the war: Today comes a salesman seeking orders for X-ray films and the railroad delivers tickets to our office.

July 15th. For further appreciation of our native state: read Marguerite Lyons "Hurrah For Arkansas," especially if you live in the Ozarks or in Helena.

## PERSONALS AND NEWS ITEMS

S. B. Thompson, who has been serving a residency at Massachusetts General Hospital, is now located at Kerman Hospital for Crippled Children, Baltimore.

Gilbert O. Dean has accepted full-time appointment as professor of surgery in the University of Arkansas School of Medicine.

T. T. Ross and J. T. Herron, Little Rock, attended a recent conference of public health officials at Biloxi, Mississippi.

Married—On June 21st at Fort Smith, J. B. Stewart and Miss Sue Webster.

S. R. Crawford has moved from Little Rock to Hazen.

Miles F. Kelly has been appointed district

health director, District 10, with headquarters at Malvern.

Malcolm O. Peeler, formerly a resident at University Hospital, Little Rock, has located at Jonesboro.

H. Clay Chenault has been elected a member of the American Therapeutic Society.

J. H. Moseley has moved from Crossett to Hodge, Louisiana.

Guy Shrigley has been elected president of the Clarksville Lions Club.

W. E. Turner, Jr., Piggott, has been elected surgeon, Arkansas Department, Veterans of Foreign Wars.

H. Clay Chenault has been appointed vice-president in charge of medical education and hospitals of the University of Arkansas.

B. B. Wells has been appointed dean of the University of Arkansas School of Medicine.

J. E. Beasley has been elected second vice-president of the Blytheville Lions Club.

Dr. and Mrs. Fred H. Krock, Fort Smith, spent a recent vacation in California.

G. E. Cannon, Hope, is the author of a recently published book, "Nights With Christ."

Thos. Wilson has been elected surgeon of the Wynne American Legion Post.

R. H. Whitehead, Jr., has been elected a director of the DeWitt Lions Club.

Elmer G. Burt, formerly of Bastrop, Louisiana, is now located at Magnolia.

Jack W. Kennedy, formerly of Prescott, has completed a postgraduate course in New York and located at Arkadelphia for practice.

Norman Peacock has been elected vice-president of the Ashdown Rotary Club.

L. J. Kosminsky, secretary, The State Medical Board of the Arkansas Medical Society, advises "Through error the name of Dr. H. A. Higgins,



Little Rock, appeared on the List of Revoked Licenses in the 1947 Directory of Licentiates. His name should have appeared on the Official List."

R. B. Robins, Democratic National Committeeman from Arkansas, Camden, attended sessions of the Democratic National Committee in Washington during July.

Euclid M. Smith, Hot Springs National Park, attended the meeting of the American Medical Association Committee on Health Resorts in Chicago during July.

Dr. G. H. A. Clowes, Ph.D., Sc.D., LL.D., director emeritus of the Lilly Research Laboratories, was honored by the American Diabetes Association at its recent annual meeting in Atlantic City, New Jersey. He delivered the annual Banting Memorial address and was awarded the Banting Medal which is given in recognition of distinguished service in the field of diabetes.

Under Dr. Clowes' direction, the Lilly Research Laboratories cooperated with the University of Toronto and Drs. Banting and Best in the early development of insulin of sufficient purity and stability to permit its widespread clinical use throughout the world.

J. Harry Hayes has been elected a director of the Pulaski Heights Lions Club at Little Rock.

## PROCEEDINGS OF SOCIETIES

The Arkansas County Medical Society was addressed July 8th at Stuttgart by Alan Cazort, Little Rock, on "The Treatment of Asthma."

The Independence County Medical Society entertained honoring President L. T. Evans at Batesville with an afternoon boat ride, golf game and evening banquet session July 9th.

The Benton and Washington County Medical Societies met in annual picnic session at Springdale, July 10th, with Euclid M. Smith, Hot Springs National Park, and Ellery C. Gay, Little Rock, as guest speakers.

G. C. Debolt, Secretary.

## WOMAN'S AUXILIARY NEWS

### Comings and Goings of the President

The past two months have been rather busy ones for me, although there are busier ones ahead in the Auxiliary. Every event of life has both bitter and sweet however, we are told. One of the "sweets" of serving as president of the Auxiliary of the Arkansas Medical Society was the opportunity of attending the convention of the Auxiliary of the American Medical Association June 8th to 13th in Atlantic City.

We had a delightful trip (by car), stopping over in our National Capitol for two days, arriving in Atlantic City on Sunday afternoon. At

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5 p. m., June 8th, I attended the first function of the meeting, a tea honoring the national president, Mrs. Jesse D. Hamer, and the president-elect, Mrs. Eustace A. Allen, at which the state presidents and presidents-elect were invited guests. It was a lovely affair and we especially enjoyed the fellowship with the group that attended the conference in Chicago, last December.

Monday was free, except for the races in the afternoon. Tuesday at 9 a. m. the 24th annual meeting opened. The next two days were pretty busy ones, with the closing session on Wednesday afternoon. Thursday morning, there was a post-convention board meeting, with the state presidents in attendance. The meeting was fine, and I feel that I derived much good from it, and shall make a better president by having attended. The highlight of the convention was the reception and ball on Thursday evening, honoring the president of the American Medical Association, with Tommy Tucker and his band furnishing the music.

A detailed report of the convention will be given at the fall board meeting.

From what I could hear in Atlantic City, we were not the only ones who returned home by way of New York—where we spent a most enjoyable week-end. Heading south, we returned by way of Richmond, Williamsburg, Jamestown, the Carolinas, Alabama, Georgia, and Mississippi—to dear Ole Arkansas and HOME—3,500 miles without a mishap or even a flat tire (a

record of a sort, I believe). A wonderful trip but it is good to be "home again."

Gay Nell Hunt, President.

## BOOK REVIEW

**Diseases of the Chest: With Emphasis on X-Ray Diagnosis:** By Eli H. Rubin, M.D., F.A.C.P., F.C.C.P., Attending Physician, Division of Pulmonary Diseases, Montefiore Hospital and Country Sanatorium, New York; Visiting Physician in Tuberculosis and Physician-in-charge, Chest Clinic, Morrisania City Hospital, New York. 685 pages, with 355 illustrations (24 plates in color). Philadelphia and London: W. B. Saunders Company, 1947. Price \$12.00.

This book emphasises the value of the roentgen-examination in diseases of the chest and discusses with proper comprehensiveness the anatomy, physiology, pathology and roentgen findings in diseases of the lungs. The film reproductions are excellent and 24 color plates add to the value of the excellent illustrations.

**A Textbook of Medicine:** Edited by Russell L. Cecil, A.B., M.D., Sc.D., Professor of Clinical Medicine, Cornell University Medical College; Consulting Physician, New York and Veterans' Hospitals; Visiting Physician, Bellevue Hospital, New York City. With assistance of Walsh McDermott, M.D., Associate Professor of Medicine, Cornell University Medical College. Associate Editor for Diseases of the Nervous System: Harld G. Wolff, M.D., Associate Professor of Neurology, Cornell University Medical College. Seventh Edition. 1730 pages, with 244 illustrations. Philadelphia and London: W. B. Saunders Company, 1947. Price \$10.00.

This is the seventh edition of a justly popular work in which more than 100 authorities have collaborated. This book will prove of great value to any practitioner in his daily activities.

J. W. REID, M. D.

J. R. BARNETT, M. D.

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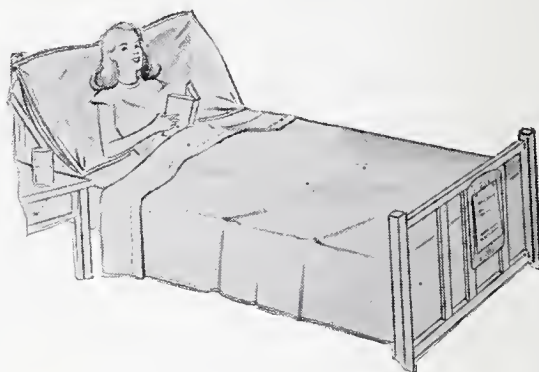


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# The JOURNAL

## OF THE ARKANSAS MEDICAL SOCIETY

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Vol. XLIV

FORT SMITH, ARKANSAS, SEPTEMBER, 1947

No. 4

### THE ROLE OF THE PRIVATE PSYCHIATRIC HOSPITAL IN THE TREATMENT OF ALCOHOL ADDICTS\*

By ROY CARL YOUNG, M. D.

Medical Director, Fenwick Sanitarium  
Covington, Louisiana

The role of the private psychiatric sanitarium in the treatment of the alcoholic should be a dominant one. The United States Bureau of Narcotics does not permit treatment of the narcotic addict in other than a hospital or sanitarium. Why should the alcoholic be an exception? From the psychological and physiological view, alcohol and narcotics are similar in effect, each being taken for its sedative action on the nervous system.

The present necessity is for early recognition by the general practitioner of alcoholism cases and consequent early reference to the psychiatrist or psychiatric sanitarium. Chronicity is too often the result of neglect on the part of the physician, and a resultant complication may be addiction to one of the parbiturates. My personal observation has been that the majority of alcoholics are referred to the psychiatric sanitarium only after they become a disagreeable problem to the physician and family, or, in other words, when they become "too hot to handle." The alcoholic should be the responsibility of the medical profession, but medical men are permitting lay organizations, reformers, charlatans and cultists to dominate the field.

All addicts, narcotic or alcoholic, should be treated in a well-managed sanitarium not only until they are free of the addiction but for a further period of time sufficient to rebuild the physical and neurological systems and restore nervous and emotional stability. This type of patient cannot receive too much of the right type of psychotherapy, given daily.

I do not imply that all alcoholics are sanitarium cases. On the contrary, I believe firmly that early recognition and common sense management of the case by the family physician can accomplish a great deal. The physician should advise the patient and attempt to give him an insight into his condition. Failing in this, consultation with a competent psychiatrist is indicated.

Understanding is the key to successful psychiatric treatment. The psychiatrist must view the situation as a whole, prescribing medication (using great care in giving the patient access to barbiturates) and arranging frequent return interviews. The psychiatric sanitarium should be recommended only after every diligent effort to straighten out the individual by consultation has failed. An increasing tendency on the part of medical men and some psychiatrists has been to dodge responsibility and merely refer the addict to a lay organization. Such a procedure cannot be viewed as being in the best interests of the patient, for no lay group can be as capable of directing treatment as a competent psychiatric physician. The problem is ours, and we must accept it.

Results in the treatment of alcoholics will often depend on the length of stay. A minimum of six to eight weeks should be the goal. Time and proper treatment are of primary importance. The economic factors of the time element are worthy of consideration, but two additional weeks in the length of stay often means the difference between success and failure. Fenwick does not accept patients for less than a four-week period, and this often proves insufficient. Most patients are admitted in an advanced stage of alcoholism and are well aware of the seriousness of their condition.

Our experience has been that regulated amounts of whiskey, given initially over a period of four or five days, along with mild sedatives and proper elimination, show better results than abrupt withdrawal. Whether it is discontinued gradually or by one of the "reflex" types of treatment does not seem to influence the final result,

\*Read at the Annual Meeting of the National Association of Private Psychiatric Hospitals, May 18th, 1947, Hotel Pennsylvania, New York City, N. Y.



which depends entirely upon the patient's insight and stability at the time he leaves.

A careful history of the case should be taken, first from the viewpoint of the patient and then from the examiner's viewpoint, omitting nothing. Physical examination should be complete and the neurological examination should be thorough and painstaking. Laboratory studies will include: complete count, urine, malaria, Wasserman, non-Protein Nitrogen, sugar, and whatever special tests seem indicated. In my section I am more frequently ordering undulant fever tests because of the frequency of this condition in our State and the fact that the chronic forms so much resemble the neurotic asthenic individual. New tests on liver functions and damage give valuable information. Early diagnosis of liver damage and proper treatment will save many alcoholics from cirrhosis.

During their stay in the sanatorium patients are on a strict routine throughout their waking periods—medicines on time, regular meals, habit re-training, no "going and coming" as they please. Even the strictest discipline includes kindness and recreation. Patients should be made to feel that everyone is interested in their recovery.

Chronic alcoholics require a great deal of study from the viewpoint of internal medicine. They require just as much internal medicinal care as do the same number of moderately advanced tubercular patients. I cannot over-emphasize the internal medicine aspect of alcoholic cases.

The psychiatric treatment starts from the moment the patient comes in contact with the physician. Thorough physical and neurological examinations should be a part of the psychiatric study. The study from the psychiatric viewpoint cannot be covered by a few short interviews. On the contrary, many interviews are required, some short and some as long as may be necessary to suit the occasion. This is true of any psychiatric case and doubly so in the alcoholic case, because in the latter we have a disturbed psychiatry, plus the addiction.

"Sick in mind and body" is an apt description of the alcoholic. The addiction phase of the alcoholic is one phase that has never been adequately stressed, but these individuals crave the narcotic effect of the alcohol just as narcotic addicts crave opiates. I think too much emphasis has been placed on the psychiatric aspect of the alcoholic. It is time to accept the rebuilding of these cases neurologically and physically until

they have regained, as far as possible, their nervous and emotional stability.

Burlingame's<sup>1</sup> views on psychotherapy are so comprehensive that I should like to quote him: "Psychiatrists talk at great length about psychotherapy, which may convey a great deal to their own initiated group, but in the minds of the general public the term is more or less mixed up with metaphysics and the occult. It is my own personal belief that psychotherapy, regardless of the form it assumes (and it does assume many forms), is essentially personal tutoring. Further, I believe that sound physical medicine and psychotherapy in the form of personal tutoring occupy the front ranks in the help which may be offered to the mentally ill. Other therapies are important adjuncts, but psychotherapy, in the form of personal tutoring and sound physical medicine, are a reliable basis for all present day psychiatric treatment aimed at restoring psychiatric patients to society."

Physical treatment includes extended rest, hydrotherapy, massage, rubs, full diet, regular hours, and habit re-training. However, it must be remembered that these methods are applicable to the individual case and not to all patients. Although it is the most important meal, eighty-five per cent (85%) of alcoholics eat no breakfast.

Amytal, seconal, luminal and drugs of this group must be used with the utmost caution and under strict regulation. If not, the patient takes them on as a side-line. The same is even more true of narcotics. Leave them out. I believe benzedrine sulphate has no place in the treatment of alcoholics.

Vitamins play an important part in the treatment of the alcoholic, but they are only an adjunct and not a specific. There is no doubt that the majority of alcoholics show a polyvitamin deficiency, and this must be treated. One must be capable of recognizing the single vitamin deficiency as well as the polyvitamin deficiencies, and specific deficiencies must be treated accordingly.

Amino-acids by parental injections give promise of great aid to the markedly undernourished alcoholic. Methionine, Choline, and Cystine are being used very successfully in the treatment of alcoholic livers, and I have found their use highly encouraging.

The private psychiatric sanitarium can be a source of reliable information to those presenting alcoholic problems. The patient during his treatment is made to understand the workings of psychiatry and usually leaves with a healthy attitude



toward this specialty. Another way of disseminating reliable information to the public is by answering properly and promptly all letters regarding treatment and other facts about the alcoholic. When an inquiry is received, we make it a point to furnish all desired information. A special small article or outline, prepared especially for this purpose, is appreciated by the lay person.

The public and even some doctors are still looking for a magic cure. Give them fact, not fancy. We at Fenwick make it a point to answer any special or specific questions that may be asked. I would say that our institution receives from five to fifteen inquiries of this sort weekly, and we always answer them fully. If all sanitariums would follow a similar policy, it would certainly help to educate the public about this problem.

In concluding, I should like to make 3 observations regarding alcoholism:

1. Sixty to seventy-five per cent of all alcoholics are not looking for a way to stay well but are really trying to prove to themselves that they can drink without getting drunk. They are trying to prove that they are not alcoholics.

2. All alcoholics (excepting those cases caused by mental disease) can get well and stay well **once they accept the fact that under all circumstances they cannot take a drink the rest of their lives.**

3. Sobering-up methods or very short stays in hospitals or sanitariums produce very little permanent benefit except in a negligible percentage of cases.

<sup>1</sup>C. C. Burlingame, AMA April 5, 1947, Vol. 133, Number 14.

### THE SCHOOL-CHILD'S BREAKFAST

Many a child is scolded for dullness when he should be treated for undernourishment. In hundreds of homes a "continental" breakfast of a roll and coffee is the rule. If, day after day, a child breaks the night's fast of twelve hours on this scant fare, small wonder that he is listless, nervous, or stupid at school. A happy solution to the problem is Pablum. Pablum furnishes protective factors especially needed by the school-child—especially calcium, iron and the vitamin B complex. The ease with which Pablum can be prepared enlists the mother's cooperation in serving a nutritious breakfast. This palatable cereal requires no further cooking and can be prepared simply by adding milk or water of any desired temperature. Mead Johnson & Company, Evansville, Indiana, U.S.A.

## DISORDERS OF THE FEMALE BLADDER; CLASSIFICATION AND TREATMENT\*

GEORGE C. COFFEY, M. D.

Hot Springs

In discussing disorders of the female bladder, I will attempt to emphasize certain general considerations rather than to describe in detail the histo-pathological classifications often found in papers on this subject.

Patients with either acute or chronic conditions of the bladder present a definite problem to the practitioner, not only because of their number, but because of the stubbornness with which their symptoms persist despite every effort at treatment.

The general practitioner of medicine with his multitude of other responsibilities is the person to whom one must look in the majority of cases for the recognition of bladder disorders. As a matter of fact, a careful clinical approach is, in our opinion, the proper manner in which all diagnostic problems should first be attacked. Those who are not in a position to carry out cystoscopic and roentgenographic studies may find it necessary to refer these patients to the specialist. It is our purpose in this paper to outline some of the principles in the study and care of such patients which will help to achieve the best therapeutic results.

The great majority of all female patients with bladder dysfunction will fall into one of the three following groups:

1. Infections.
2. Mechanical.
3. Neurosis, with or without an endocrine imbalance.

The first group may occur at any age and the etiology is due to a definite organism. The diagnosis is usually made by history of an acute bladder irritation and finding on microscopical examination of the urine of a varying number of pus cells, red blood cells, and on stained smear gram negative and positive organisms.

A brief survey and analysis of office and hospital cases showed the following micro-organisms: B. Coli group; staphylococcus albus and aureus, non-hem. streptococci; B. Proteus vulgaris; B.

\*Read before 71st Annual Session, Arkansas Medical Society, Little Rock, April 17, 1947.



pyocaneus and occasionally *B. alkaligenes*. To the above group of bacteria, I wish to add the parasite *trichomonas vaginalis* which has been so often found in the acute and chronic cases of recurrent bladder infections. I think it is proper at this time to state that the author has found and treated seventeen cases of trichomonal infections in the male during the past five years. This may be responsible for some of the recurrences in the female.

The important contributory factors in infections of the female bladder are obstructions, neuro-genic lesions, extension of urethritis, or by contiguity from the intestinal tract and peri-vesical tissues. Proper treatment applied early usually is successful. The following regime is instituted in my office after the diagnosis is made: 1. Bed rest. 2. Increased fluids. 3. Sedation as tincture of hyoscyamus 20 to 30 drops three times daily. 4. Rectal suppositories containing powdered opium 1 grain and extract of belladonna  $\frac{1}{4}$  to  $\frac{1}{2}$  gr. after the morning bowel movement and at bedtime. One of the sulfa drugs, preferably sulfa-cetamide (Sulamyd) gms. 1, every four hours day and night for eight doses, then  $\frac{1}{2}$  gm. four times daily until the urine has been free of pus cells for several days. Also gentle low pressure bladder irrigations of boric acid-acriflavine solution with instillations of 5% argyrol; along with heat in all forms makes the patient more comfortable. The newer antibiotics are not used unless the patient has more than moderate elevation of temperature or a pure culture of a susceptible organism.

There seems to be little assurance that we can give these patients that they will not have recurring attacks; however, we do instruct them to keep the external genitals and hairy parts scrupulously clean. They are also instructed to stroke the toilet paper backwards after defecation and to correct vaginal discharge.

The second and third groups represent the greatest problem in management. They may include many similar subjective symptoms and even the histo-pathological changes are overlapping, but the course of each is rather definite in nature. In the second group the mechanics of the bladder have been disturbed and this, of course, may be intrinsic or extrinsic. This discussion, however, will be limited to the bladder disorders that follow a definite break in the continuity of the foundation of this organ. The most common cause of this is child-birth which pro-

duces a stretching or tearing of the anatomical support of the bladder proper, but cannot dislodge the anterior urethra which is hitched to the pubic bone. The body of the bladder, therefore, gradually becomes more ptosed or a cystocele develops which may greatly disturb the normal emptying process and create contractions and spasms at the bladder neck. It is remarkable the number of these patients one will see both in the young and old, regardless of the finesse of the modern day obstetrician or gynecological surgeon.

The management of this group of patients depends on whether the examination reveals clean or infected urine, the degree of prolapsed mucous membrane, or whether a caruncle is present and what the findings are on cysto-urethroscopic study. Office treatments include thorough dilatation of the urethra, including a meatotomy when necessary. Electro-coagulation may be necessary to remove prolapsed mucous membrane similar to the procedure used in destroying small hemorrhoids. With a McCarthy panendoscope one can easily destroy excessive granulations and polypi of the urethra and bladder neck, also one may stroke the lower segment of the vesical outlet with a suitable electrode, such as the Timberlake, in order to reduce the edema and spasm in this area. These cases must report from time to time for dilatation and observation. This group may present the additional symptoms that will now be described in the next classification.

In the third group comes the typical case of Mrs. X, age 45 to 60, who has most likely had a premature menopause. This might have been spontaneous, surgical or due to radiation. Her complaints include a great variety of symptoms referable to the bladder, pelvis and lower abdomen and often follow a set pattern ranging from actual pain in the urethra, bladder and vagina, to a pruritis of the vulva and surrounding parts. This type of patient usually complains of frequency, urgency, nocturia, dysuria and fullness and bearing-down feeling in the lower abdomen or pelvis. She is talkative and will detail you on the number of previous treatments and failures. These patients are hyper-sensitive, neurotic women and have a pronounced emotional instability. She does have some basic reason for her complaints for we all know there are certain changes that take place in the bladder during the menopause such as local atrophy of the trigone, increased sensitivity to the moistening urine and



the lowered threshold of vasomotor and sympathetic systems.

The management of this group will tax the skill and patience of any physician. From twenty-eight years' experience with these unfortunate women, I have learned to respect their symptoms, real or otherwise. I seek their confidence; discuss and clarify their sexual problems if any are present; correct existing anemia, if present with iron, tonics and a good diet; increase their vitamin B intake and administer anti-spasmodics if indicated. Physical therapy in the form of hot baths, medical diathermy, douches, and sitz baths is decidedly beneficial. Locally we use urethral dilatations and massaging the urethra and adjacent parts over the sound. My choice of estrogenic therapy consists in giving Estradiol Benzoate (progynon) 1,000 to 10,000 units once or twice each week until the marked symptoms are controlled, then one of the estrogens orally in only a sufficient dosage to make the patient comfortable. Under the above regime, many of their distressing symptoms have been relieved and you have made a friend and grateful patient.

#### Conclusion:

1. An attempt has been made in this discussion to group and simplify common female bladder disorders.
2. Infections of the bladder usually respond to proper application of modern drugs to specific bacteria.
3. Early repair and correction of gynecological pathology would prevent the onset of many urinary symptoms.
4. The female patient seeking relief from urinary symptoms deserves a careful examination which should begin at the meatus and include the urethrae, vesical neck, trigone, inter-ureteric ridge and ureteral openings.



## THIS PROBLEM OF NEUROSIS\*

JOE VERSER, M. D.

Harrisburg

The recent World War has brought to an acute focus the incidence of mental ill health throughout this country. We might better realize the seriousness of the problem by quoting a few facts and figures. Of something over fifteen million men examined by the armed forces, slightly less than 1,750,000 were rejected from military service because of neuropsychiatric disturbances.\* In other words, one out of every 9 otherwise normal, healthy, young men, were not inducted because of some mental, emotional or personality problem, which made them poor risks. Besides those rejected, we must now look at those inducted but later discharged for disability reasons. The rate of discharge for neuropsychiatric disability, was, as we might expect much higher, nearly 45%, thus constituting the largest single reason for disability discharge, and even more serious, a much larger percentage of this discharged group never saw actual combat, or heard an enemy gun fired. It is also well to keep in mind, that the estimated cost to the government will be from \$30,000 to \$50,000 for each of these neuropsychiatric casualties. For the benefit of the ladies present, who might, from these figures, be getting the idea that we men are just a group of immature, emotional unstable individuals, I will add that the rejection rate in the Women's branches of service for neuropsychiatric reasons was twice as high as that of the men. Besides this group of discharged veterans, there is an ever increasing number of maladjusted people who in their inability to cope with life's problems develop tension and symptoms. When the symptoms are in the mental sphere they give rise to special names such as psychosis and psychoneurosis. It is of the latter group that I wish to speak today.

Modern medical practice makes the use of the terms neurosis and psychoneurosis almost interchangeable. There are some who include within the scope of the neuroses certain conditions such as scleroderma, causalgia, and erythromelalgia. These should not, however, be placed within the category of the psychoneuroses. They are clear-cut organic syndromes and not of psychologic origin. The neuroses and especially the term 'neurotic' are fast becoming a catch-all for too many ill-defined disorders. Certainly one should

\*Read before 71st Annual Session, Arkansas Medical Society, Little Rock, April 18, 1947.



not include within the realm of the neuroses those which are definitely psychotic. Even though the mildly insane may present psychoneurotic symptoms, some distinction should be made. I will admit a number of borderline cases exist which present a problem as to correct diagnosis. And, furthermore, we have long since learned that there are fragments of sanity in every insane individual, and fragments of insanity in every sane individual.

One common mistake among physicians and laymen is to place in the category of the neuroses that familiar type personality, the psychopath—so called, C. P. I. psychopathic state and psychopathic inferiority, better known in army slang as the 8-ball or section 8 case. The psychopath represents a distinct group, separate from the neuroses, who conform to a certain intellectual level sometimes low, and often high. Among the lower, one finds a considerable number of juvenile delinquents, certain type criminals, hoboes, paupers and prostitutes. On a higher level is the black sheep of the family, and a group of erratic, half-genius, half-crazy persons, with brilliant spots here and there but without continuity, and always in conflict with their environment. The inadequacy or failure of these people to adjust to ordinary social life is not a mere wilfulness, badness or "orneriness," nor can it be threatened or thrashed out of the individual so involved. It constitutes a true illness for which we have no specific explanation and it is constitutional. Psychopaths are born, not made. The psychopath is a "rugged" and pathologic individualist whose behavior is fixed and cannot be altered by any amount of prayers, lectures, sentimental pep talks, punishment or medicine. To those of us in service, the army brought to our attention a large number of psychopaths. Unfortunately, too many of these men were given disability discharges with an incorrect diagnosis of psychoneurosis. It is necessary that we distinguish between the two disorders. One of the best ways I know, is to remember that a psychopath is continually making every one around him unhappy, while a neurotic attempts only to make himself unhappy.

Next, one must differentiate between a true psychoneurosis and a psychoneurotic reaction as a part of or symptom of some other disease. For instance symptoms of a psychoneurotic nature are often noted in the early stages of certain organic diseases, such as brain tumor, paresis, etc. Also one should not confuse certain psychoneurotic reactions which are generally considered to be reactions based on simple organic factors,

such as anemia, vitamin deficiency or some similar process, or are so brief and transitory that they are not felt to be true psychoneuroses. Effort syndrome and combat fatigue should be placed in this group since it is felt they commonly arise in persons of fairly good constitution, and if properly handled are brief and transitory reactions.

This brings us to a discussion of psychoneurosis. To give you a simple clear-cut definition of psychoneurosis is impossible, there just isn't any. Rather than a specific entity, it is more of a pattern of adjustment that a person makes to the problems of living. It is a failure of adaptation within the personality. Psychoneurosis is certainly an inferior, inadequate and unhealthy method of attempting to solve the difficulties of life. Due to these varying emotional reactions, psychoneurotic symptoms arise, which may be of conscious or unconscious origin. The symptoms are extremely variable. Anxiety and fear are usually the most frequent. A large percentage of them are merely exaggerations of responses which all normal persons have, especially if subjected to sufficient stress or strain. Some one has attempted a definition of psychoneurosis, by saying one is a psychoneurotic, if he habitually behaves in a psychoneurotic fashion. This certainly is as good as any. To discuss the various types of psychoneurosis at this time is unnecessary, but every general practitioner should have working classification to include the more common, such as anxiety neurosis, neurasthenia, hypochondriasis, reactive depression and conversion hysteria. Although the precipitating factors in these conditions can some time easily be found, the real etiology remains obscure. Just why one person adopts the pattern of psychoneurosis and another does not certainly is not clear. It is generally accepted that there is a constitutional predisposition for such a reaction pattern which comes to the fore after certain difficult situations. I am wondering, however, if this predisposition isn't universal to a varying degree. In fact, when it is recalled that psychoneuroses have been experimentally induced in lower animal by repeated frustration the relative importance of heredity appears less than is generally accepted.

In order to prevent the psychoneuroses, theoretically one should start with eugenics, but knowledge in this field is so limited that it is an impossibility. Then we should turn to the child, his family relationship, and the culture in which he lives. It is a well known fact that most behavior difficulties of children are reflections of basically unhealthy attitudes within the home.



Certainly I cannot speak with authority, but I sincerely believe that improper child training and poor home environment are contributing factors toward this increase in present day neurosis. Immature, maladjusted parents can expect nothing but immature, emotionally unstable children. For some unknown reason too many mothers have the mistaken idea that their child should not be corrected. They consider it smart and just a natural reaction when little Johnnie starts hammering down the house or cutting off little sister's curls. It may be they are wrongly attempting to use child psychology, and forgetting the old adage of "spare the rod and spoil the child." Parents should give their children a sense of security in the child's own small world, and discipline should be at a happy medium, neither too harsh, nor too mild.

Our underpaid school teachers of today might well be considered another contributing factor toward today's neurosis. One of the schools greatest defects is the teacher who is teaching because she must and not because it is the career she chooses.

Certainly one could not omit the physician in a discussion of the prevention of the neuroses. No matter how we look at it or how much the physician may dislike this class of patients, neurosis is a medical and not a moral problem. Dr. Logan Clendening in his book, "The Human Body," remarks that 50% of the patients whom he saw had no organic disease, but were sick because their minds, their souls, and their lives were warped. Every physician has the same experiences in his practice from day to day, whether he be internist, cardiologist or general practitioner. In fact it is far more fashionable today to speak of one's psychoneurosis than to tell of one's recent operation for appendicitis. Those physicians here today who were medical officers in service a short time ago, can well remember the large sick calls each day, vast numbers of physically fit young men without organic diseases or causes, yet disordered functionally. We well know that their symptoms were manifestations of reactions against the drills, marches, and the army in general, in the same manner that the civilian who comes presenting psychoneurotic symptoms is reacting against his home, his family or his environment in general. The medical practitioner of today and the future must be able to help these maladjusted, mentally ill people. To do this he must show a greater interest and a more accurate knowledge of psychiatry. The sick man's personality must be judged along with the physical and laboratory findings. Mistakes in

diagnosis and treatment of patients with functional, psychoneurotic or actual psychotic disorders are so common as to discredit gravely the ability of the medical profession. This can best be shown as follows. Of 150 psychoneurotic cases recently admitted to the psychiatric clinic of a large eastern hospital, history revealed they had received from medical practitioners a total of 496 treatments, 244 surgical operations and 71 treatments by cultists and quacks. In all the 150 patients received a total of 811 treatments and operations before the real cause of their ailments were found. It is further interesting to note that all were benefitted and the majority cured by proper psychiatric treatment. These mistakes encourage patients to make the round of doctors without benefit and contribute largely to public dissatisfaction with medical care, thereby increasing the clamor for socialized medicine and constituting a direct threat to organized medicine. Time does not permit a discussion of psychotherapy, other than to say it is a technique of manipulating interpersonal relations, and its basic principles can be applied by any physician who understands human relations. Some neurotics are too far gone, too deeply involved in their own conflicts to be helped by the average physician. These are fixed psychoneurotics. They require major psychiatry and must be referred to psychiatrist. Even then there aren't enough psychiatrists to go around. The day has come that the general practitioner must become psychiatrically minded and must practice minor psychiatry in the same manner that he practices minor surgery.

In conclusion, I am wondering if the neuroses, these ill-defined disorders for which we have no satisfactory explanation and for which I have spoken so long and told you so little, isn't rather a result of the trend of the times. Something that has happened to people, along with the automobile, the machine age, and the ever changing fast tempo of living. One psychiatrist, when discussing mental diseases recently, spoke of the words of Mark Twain when he was advocating a large navy. At that time Mark Twain remarked, "We have the water, and now all we need is the men and the ships." In mental diseases we certainly have the words and the problem, all we need is the solution. Although mental diseases aren't usually deadly, they incapacitate, cause marked unhappiness, and by virtue of rendering so many men unfit for military service in time of an emergency constitute a direct threat to our democracy. Any attempt toward prevention must come from the parent, the teacher and the physician.



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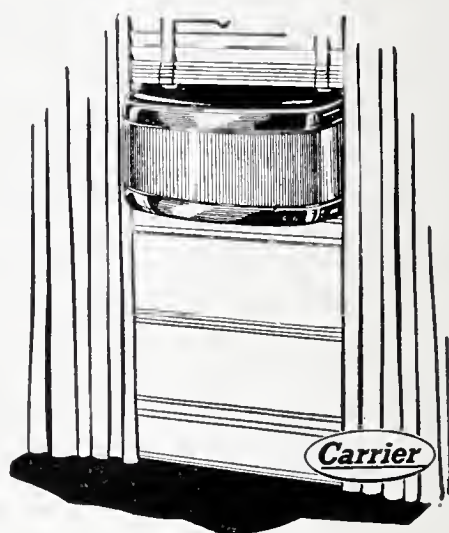
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## EDITORIALS

### 1947 SESSION, HOUSE OF DELEGATES, AMERICAN MEDICAL ASSOCIATION

D. A. RHINEHART, M. D., Little Rock  
L. J. KOSMINSKY, M. D., Texarkana

The Centennial Session of the American Medical Association in Atlantic City, June 9 to 13, with a 15,667 registered attendance, with 60 distinguished foreign physicians as invited guests, with scientific and commercial exhibits covering the immense floor of the auditorium, and with the meetings of the scientific sections full and overflowing was undoubtedly the greatest medical meeting ever held. Comparatively insignificant in size was the House of Delegates, which held seven sessions in three days, listened to and considered the reports of officers and the different Councils, Bureaus and Committees and considered, approved, or rejected resolutions governing the policies of the association possibly for years to come. Not more than the highlights of the sessions can be reported. The full proceedings of the House of Delegates have been published in the Journal of June 21, and 28, and July

5, 1947. The address of the President, Dr. H. H. Shoulders, delivered at the opening session, should be compulsory reading for every physician in the United States.

The House of Delegates was particularly concerned with the future of general practitioners of medicine, with the inadequate supply of nurses, with military preparedness, with plans for organizations for the prepayment of medical and hospital expenses, and with improving the public relations of the medical profession.

President Shoulders in his address said, "It is apparent, therefore, that the immediate and most urgent needs are concerned with increasing the availability of the services of general practitioners." He recommended that a special committee be appointed for the purpose of studying all factors affecting the production and distribution of general practitioners and outlined seven items that should be included in this study. The House of Delegates approved this action and this committee will be appointed by the Board of Trustees.

The House of Delegates made provision for the inclusion of departments or sections of general practice in the staff organizations of recognized hospitals. It provided for the holding of two-day scientific sessions in connection with the supplemental meeting of the House of Delegates, usually in December of each year, these meetings to be held in different geographical parts of the country and the program to be devoted to the general practice of medicine. It was the sentiment and opinion of the delegates that specialization in the hospital training of internes and residents has been overemphasized, and that hospital staff appointments too often have been limited to the diplomates of the different specialty boards and members of special societies.

The supply of nurses in the country is 60 percent adequate. President-Elect Bortz said that a serious crisis has developed in the nursing field. A resolution was passed suggesting a liberalization of existing laws to permit the training of practical nurses in hospitals now conducting schools for professional nurses, and urging the establishment of training programs for practical nurses in hospitals registered by the American Medical Association, but not at present conducting nurses training programs of any sort. Provision was also made for the appointment by the President of a Committee on Nursing Problems. Among the items suggested for the study of this committee were the objectives of the nursing profession, the standards of education, the time for training, the various curriculums, the supply



of nurses, and the training of practical nurses.

A special Committee on National Emergency Medical Service was created by a resolution of the House of Delegates in 1945. This Committee sent letters to 400 key men in positions of civilian and military leadership during World War II. It sent questionnaires to 50,000 discharged medical officers and 5,000 civilian physicians. On the basis of the study of the letters received and the replies to the questionnaires the committee made several recommendations. These recommendations are too long even to summarize. In them are included the creation of a National Emergency Medical Service Administration consisting of representatives of the various medical, surgical, nursing and public health associations whose function it shall be to plan the utilization of all the medical and allied resources of the nation for military and civilian needs in case of a national emergency. In a threatened or actual national emergency the Surgeons General of the different branches of the armed forces and others are to be added to the administration.

The report of the Council on Medical Service was a comprehensive document. It dealt with the organization of the Council and its activities. These include regional conferences, the present status of voluntary prepayment medical and hospital plans, the organization of a speakers bureau, the United Mine Workers Health Fund, the different publications of the Council, some of the bills now in Congress of interest to the medical profession, and the activities of the Washington office of the American Medical Association.

Voluntary prepayment medical care plans are in operation or in progress of development in forty-seven of the forty-eight states. The seal of acceptance has been granted to fifty-two plans approved by state and county medical societies and the total enrollment in such plans on January 1 was approximately 5,000,000, an increase of nearly 100 percent in the past year. The Council has approved only nonprofit plans. It will be faced with considering applications from medical societies that have approved plans underwritten by private insurance companies. Such plans have been approved in Arkansas, Illinois, South Dakota and Wisconsin, and are under consideration in five other states.

Public relations of the medical profession received due consideration. The employment of a lay group to direct the public relations of the American Medical Association was found unsatisfactory and it was discontinued. The Board of Trustees of the Association was directed to set up machinery to reestablish a Bureau of Legisla-

tion and Public Relations and the Executive Committee of the Board was placed in charge of public relations until the Bureau is reestablished.

It was emphasized that "each physician has responsibility to keep his clientele informed of aims toward which organized medicine is working." It was emphasized that the activities of the component county medical societies is most important in the field of public relations. To aid them one of the activities of the Council on Medical Service is the establishment of a speakers training program in every county medical society.

Miscellaneous items of interest from the meeting are as follows:

Dr. R. L. Sensenich of South Bend, Indiana, former member of the House of Delegates and retiring President of the Board of Trustees was chosen President-Elect. Dr. T. A. McGoldrick of Brooklyn, a member of the House from New York state, was elected Vice President. Dr. Henry A. Christian of Boston was voted the Distinguished Service Award. Although he was unable to complete his term of office as President-Elect, Dr. Olin West was given a President's medal. The Speaker and Vice-Speaker of the House of Delegates were reelected.

The House of Delegates voted to establish a Section of Diseases of the Chest in the Scientific Assembly.

Reports were presented to the House on steps that have been taken to form a World Medical Association and a Pan-American Medical Confederation. The American Medical Association was interested and represented in both new organizations.

A revision of the Constitution and By-Laws of the Association was presented to the House of Delegates. Under a provision of the present constitution these must lay over for a year before final consideration and adoption.

A "grass roots" conference of secretaries and officers of county medical societies was held before the meeting and created considerable comment. Such meetings will be continued.

An American Academy of General Practice was organized by representatives from twenty-seven states.

An outstanding exhibit at the meeting was that of the American Physicians Art Association. Dr. Howard Stern of Little Rock was an exhibitor and won a first award in the advanced water color division.

Dr. R. B. Robins of Camden presented a paper before the Section on General Practice.

Dr. L. J. Kosminsky of Texarkana, Delegate



from Arkansas, was a member of the Reference Committee on Hygiene and Public Health.

A resolution was passed by the House of Delegates advocating the placement of a statue of Wm. Crawford Gorgas in the New York University Hall of Fame.

## THE ARKANSAS HEALTH PLAN

CHAS. R. HENRY, M. D.

Enrollment of the first subscribers to the Arkansas Health Plan was expected to take place during September as the new surgical-hospital prepayment plan entered the first stages of an active promotional program.

Offices of the Plan were opened in Little Rock by Milton L. Daugherty, manager, during August; enrollment literature was sent to press, and final plans were made for the actual presentation of the program to the first groups.

After only a few days at his new assignment, Mr. Daugherty reported that he was highly pleased with the widespread interest in the plan that he had encountered.

"I'm sure that my initial problem is going to be to keep up with the demand," he commented. "From our viewpoint, enrollment is almost certain to be rapid from the very start, as evidenced by the number of inquiries that had come in before our active promotion was under way.

"Needless to say, we welcome these inquiries, and we will do our best to see that each receives prompt and adequate attention. We have made plans to expand our staff as rapidly as the demand warrants, the sole limit being the time that will be required to train new personnel.

"Even as the organization of the staff is under way we expect to begin the actual enrolling of groups. It takes time to enroll each group, however, and to make certain that the new members understand exactly how the Plan will work so that they can use it to best advantage.

"As has been stated previously, the purpose of the Plan is to help members get the surgical and hospital services they need without worry about the expense. A thorough knowledge of its operation is essential to this purpose."

It is important, Mr. Daugherty explained, for doctors to understand that, even though the Plan may grow rapidly, sometime may elapse before individual doctors begin to receive patients entitled to the Plan's benefits.

"An enrollment of as many as 100,000 persons distributed throughout the state would not mean

that every doctor would be receiving enrolled patients," he said.

"Enrollment necessarily is by groups, at least initially, because this permits the broadest benefits at the lowest cost. At the same time, this implies some concentration of membership, although the groups themselves may be widely distributed throughout the state."

As outlined previously, the coverage provided by the Arkansas Health Plan will consist of four different programs at the start. These will provide: (1) Payment for surgical and obstetrical care in the hospital, the home, or the doctor's office according to a Schedule of Benefits, plus coverage of the complete hospital bill, including all extras, for up to 120 days of care in a semi-private room; (2) payment for surgical care plus an allowance up to \$3 a day for hospital room and \$30 for extras; (3) comprehensive hospital care without surgical coverage, and (4) \$3 daily toward hospital room and \$30 for extras, without surgical coverage.

Because the Arkansas Health Plan is underwritten by the John Marshall Insurance Company, a national organization, the same benefits will be available to members even though they may require care outside of the state as a result of travel or change of residence.

Among the factors which will make the Plan simple in operation and convenient to both doctors and patients are the use of subscriber identification cards, the simplification of reporting forms, and practice of making payments directly to doctors and hospitals.

The identification card will be issued to each enrolled individual or family by the John Marshall Insurance Company. On the back of this card is a message to doctors explaining the code numbers on the card face.

Thus a subscriber may be entitled only to hospital service, in which case the insurance company pays only the hospital bill and the doctor should submit his statement to the patient. If the subscriber also is entitled to surgical and obstetrical services, the code number so indicates and the doctor who provides such services is requested to notify the Plan immediately so that the patient's good standing can be verified and payment to the doctor made promptly.

In order to receive payment, the doctor sends in a simple one-page form supplied by the Plan, and on the form he notes the treatment and lists his charge for his services. Payment of the doctor's statement for all services covered by the subscriber's contract is made within 72 hours and in full up to the maximum allowed in the Sched-



ule of Benefits. If the doctor's bill exceeds the amount paid under the Schedule, the balance is billed to the patient.

In many ways the operation of the Arkansas Health Plan will be identical with that of the medical service plans in existence in other parts of the nation. The Arkansas Plan offers a number of additional advantages, however. The program has been simplified in operation; the doctor signs no contract in order to treat insured patients, and the statement form used by the doctor has been reduced to a few simple entries.

Mr. Daugherty has consulted on several occasions with members of the Joint Committee of the Arkansas Medical Society and the Arkansas Hospital Association. It was through the Committee that the Plan was developed as an official project of the two organizations.

He has agreed to assist in the development of informational material to be sent to every member of the Arkansas Medical Society. It is expected that this material will be ready in the near future.

Doctors are urged to watch for this material and to use it as the basis for a permanent file on the Arkansas Health Plan. By reading the material as it comes in and retaining it for future reference, doctors and their office assistants will be in a position to answer general questions about the operation of the Plan or to refer specific questions to Mr. Daugherty and his staff.

### WHAT DO THEY MEAN: "HEALTH INSURANCE?"

For the past quarter of a century many legislative attempts have been made on a national level to sell the American people on various projects, all cloaked in the euphonious garb of "health insurance." No matter how these multitudinous philosophies have been dressed up, no matter the tailoring, the cut, the style, the cloth or the buttons, they have all been arrayed as if we could make a healthy nation simply by buying insurance.

It is one thing to promise that simple legislative fiat will make us healthy as a nation, but it is an entirely different thing to make our promises come true. There is a marked disparity—as evidence in all countries who have tried this noble experiment—between the blue-prints of health, which look so good on paper, and the fruition of these plans in actuality.

No one should attempt to obstruct any plan

which definitely would improve the health of our nation. And, up to now, organized medicine (which has been accused of "obstructionist, reactionary" tendencies) has not been guilty of such a charge.

Recently, a new Wagner-Murray-Dingell Bill has been introduced with the endorsement of those in the highest political echelons. Perhaps it is significant that the prelude for this present political-medical operation was not so dramatic as that of the Fall of 1945. At that time, you will recall, a full-dress barrage of radio and newspaper rapid-fire emanated from the White House, the next day the 1945 version of the W-M-D Bill was introduced. As intimated before, perhaps it is or is not significant that the present version of the W-M-D Bill was introduced without such effusive support.

After reading through a very considerable amount of material both for and against federalized medicine there are certain conclusions which are obvious: (1) proof is wanting that any nation has been made healthier because of these insurance schemes, (2) the rejection rate of draft-age men in countries having compulsory medical care was higher than in our country, (3) preventive medicine in countries covered by state medicine is less in evidence than in our country, (4) political medicine (by whatever name), invariably builds up an army of office-holders wherein the expense and proportion of lay administrators to the number of doctors and the services rendered is inordinately high, (5) absenteeism from work and the time lost because of illness (actual or that illness only existent as certified to by a physician) has always increased whenever any country introduced "health insurance," (6) the type of practice and the quality of service rendered to people has fallen inexorably with this type of blanket coverage, (7) proposed services have always resulted in either, (a) exhausting the funds available (as in New Zealand), resulting in bankruptcy of such schemes, or (b) in depleting the allocated amount of funds to such a degree that the services actually rendered become inferior.

No matter what exalted position is occupied by those who mouth these platitudinous phrases such as "health insurance," it is a challenge, it is our right and our duty to inquire: what do they mean by "health insurance?"

—Vincent T. Williams, M. D.

From Jackson County Medical Society Weekly Bulletin, May 31, 1947.



## IT SAYS HERE . . .

It says here that you feel a lot better for expressing yourself, so this humble contributor expects to be a well man in a few moments—or just as soon as he gets this out of his system.

A few weeks ago the American Medical Association completed its first one hundred years and in very good shape, too—it says here. The public loves the AMA and wishes it continued freedom from federal control and other problems that might beset a century old body. Its method of operation is the envy of every professional organization on earth, including the American Bar Association, it says here.

\* \* \* \*

Whether the method of operation is actually envied by other organizations we do not know from personal experience, but will wager that more than one group would be intrigued. As note this example, for instance:

Some layman took the trouble to send a telegram to the president of the AMA. Its message was not immediately divulged but judging by the consternation of those who knew, it must have said something other than happy birthday. What should the House of Delegates do by way of reply?

First, according to the chairman of the Board of Trustees, the room must be cleared of all except delegates because others could not be trusted for a discussion of this kind. Now the telegram said something about a federal plan for medical care and may even have been sent by a senator from Montana or someone like that. At any rate it was released to the newspapers before delivery to the AMA, but that made no difference. The House of Delegates must have an executive session—and did, it says here.

Many presidents of state medical societies were escorted out of the room by the sergeant-at-arms, including the president from Kansas. It was a solemn occasion and a memorable one on this hundredth anniversary. Deliberations must have been heated because they took a long while. And the result? The result is an official secret, and a comma may be out of place here or there, but this is the reply that was born in that secret room. "Your message received and contents noted. Sincerely." So much for methods of operation and envy.

\* \* \* \*

—Editorial, The Journal of the Kansas Medical Society, July, 1947.

## EDITORIAL COMMENT

### THE KANSAS CITY SOUTHWEST CLINICAL SOCIETY

October 6-9th marks the Silver Anniversary meeting of the Kansas City Southwest Clinical Society, the organization devoted to the promotion of postgraduate medical education through annual sessions which pioneered this successful approach to dissemination of current medical teaching to physicians on a geographical grouping. Throughout the years the physicians in the "Heart of America" have shown their appreciation of the efforts of our Kansas City colleagues by repeated and increasing attendance. Based upon practical instruction the Kansas City group has brought the newer scientific medical advance to the physicians in this Southwest section annually for twenty-four years. May it continue to grow in usefulness.

### RANDOM THOUGHTS OF THE SECRETARY

July 16th. We know naught of operation of national committees but we will wager that Democratic National Committee's Executive Committeeman Sullivan finds Bob Robin's lack of enthusiasm and that \$100 Rhode Island fine for reckless driving quite a load to carry.

July 23rd. With Siegel, Shrygley, Hunt and 2779 others to inaugurate return of professional boxing to Clarksville after a lapse of nearly a quarter-century and the show all that one could ask for under such circumstances, especially the main bout where Clarksville's own Kinney gives and takes in a mighty manner.

July 27th. Come the Chamberlains visiting and to take us to the Dining Car for a steak of perfection, the entire group collaborating after with the maitre d' hotel over deficiencies as found in his French Fries, and, with the combined culinary knowledge of Duncan Hines and Fred Harvey, to suggest the exact manner in which these should henceforth be prepared.

August 4th. A proper sense of loyalty and patriotism comes in for a smudging as activities on war contracts are now brought forth.

### COMING MEDICAL MEETINGS

Silver Anniversary Meeting, Kansas City Southwest Clinical Society, Kansas City, October 6-9th, 1947.

Oklahoma City Clinical Society, Oklahoma City, October 27-30, 1947.

Southern Medical Association, Baltimore, November 24-27, 1947.



## OBITUARY

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ARTHUR G. HENDERSON, age 95, died at his home in Imboden, July 24th. A native of Tennessee, he studied at the Jackson, Arkansas, High School and graduated in medicine from Missouri Medical College in 1876 and from Bellevue Hospital Medical College in 1887. He was a former school teacher and organized the first school district at Imboden, serving as president of the school board for 12 years. He first practiced at Walnut Hill. A charter member of the Randolph County Medical Society, he had been an honorary member of the Arkansas Medical Society for many years. He was a steward and Sunday school teacher in the Methodist church and served four Masonic lodges as master. Surviving is his daughter, Mrs. W. C. Hill.

---

ARIS W. COX, age 64 years, died suddenly at Helena, July 29th. A graduate of the University of Nashville Medical Department in 1906, he had been associated with his brother, Dr. Allan Cox, in practice at Helena since 1909. In 1912, he took special work and confined his practice to eye, ear, nose and throat diseases. He was a member of the Helena Country Club, the First Presbyterian Church, the American Legion and the Masonic bodies. He was a fellow of the American Medical Association. Surviving relatives are his wife and a son in addition to his brother and three sisters.

---

ALVA A. GARRETT, aged 74, retired district manager of the Southwestern Bell Telephone Company and resident of Pine Bluff for the past 23 years, died March 5th at the Davis Hospital, Pine Bluff. He was born in Sheldon, Illinois, May 4, 1873. Dr. Garrett began work with the Central Union Telephone Company as an installer in Indianapolis, Indiana, May 1, 1897. During these years he attended the Kentucky Medical School in his spare time and in 1906 he received his M. D. degree. He came to Pine Bluff in 1924 and he retired because of failing health December 1, 1931. He was a member of the Hot Springs Lodge No. 62 F. and A. M., Hot Springs Chapter No. 47 Royal Arch Masons, Hot Springs Council No. 23 Royal and Select Masters, Hot Springs Commandery No. 5 Knights Templar, and Sahara Temple of Pine Bluff. Survivors are

two sisters, Mrs. Anna Raypole and Mrs. Lillian Reider of Colorado Springs, Colo.; three nephews, Donald Garrett of Dallas, Texas, Garrett Bowman of Dayton, Ohio, and Bennett W. Smith of Dierks, Ark.; two nieces, Mrs. Lonnie Thomas and Mrs. Mae Howard of Los Angeles, Calif.; one sister-in-law, Mrs. John Franks of Dierks, Arkansas.

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JOHN R. KITLEY, Mayflower, died May 19th of a heart attack. Born in Flora, Illinois, April 4, 1869, he moved to Arkansas with his family at the age of eight. He graduated from the National University of Arts and Sciences, Saint Louis, in 1902 and first located at Fairmount, Prairie County. Moving to Mayflower he was active in civic affairs and had served as mayor of the town since 1928. He was a member of the Faulkner County Democratic Committee, a steward in the Methodist church, the Masonic bodies, the Modern Woodmen and had served as a member of the Mayflower School Board. Surviving relatives are his wife, a son and a daughter.

---

CURTIS HOWARD KENNEDY, age 69, Fort Smith, died August 5th. A graduate of the Kansas City College of Medicine and Surgery in 1919, he had practiced in Fort Smith since 1921. He was a member of the Masonic bodies and of the Scottish Rite. He was a member of the Sebastian County Medical Society and the Arkansas Medical Society and a fellow of the American Medical Association. Surviving are his wife and a son, Dr. Virgil N. Kennedy, in practice at Fort Smith.

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JOHN M. PROCTOR, age 69, Hot Springs National Park, died August 9th. Born in Camden, he had lived in Hot Springs National Park for fifty years. A graduate of the University of Tennessee College of Medicine in 1906, he was a member of the Garland County Medical Society, the Arkansas Medical Society and a fellow of the American Medical Association. He had served as Councilor from the Seventh Councilor District and, at the time of his death, was a member of The State Medical Board of the Arkansas Medical Society from the Sixth Congressional District. He was a member of the Kiwanis Club and of the Methodist Church. He is survived by his wife and a daughter.





## PROCEEDINGS OF SOCIETIES

The Lawrence County Medical Society met at Cave City, the guests of W. S. Kendall, August 12th, for the following program: "Ready or Not, Here I Come, Old Age," J. J. Monfort, Batesville, and "Fractures of the Upper Extremity," R. L. Calaway, Batesville.

Chas. D. Tibbels, Secretary.

The Craighead-Poinsett County Medical Society met in dinner session at Jonesboro August 7th for a program on allergic diseases of the nose, presented by M. E. Blanton and O. T. Cohen, and irradiation in certain cases of deafness by H. D. Gray, Memphis.

The Independence County Medical Society was addressed August 11th by Frances C. Rother, Little Rock.

Paul Gray, Secretary.

## RESOLUTION

### IN MEMORY OF DR. H. H. McADAMS, JONESBORO, ARKANSAS

The little bird sings in the tree top today. It chirps its song to its loving mate. They tell us this is life. Tomorrow it lies cold and still at the root of the tree. It sings its song no more. They tell us this is death. As we turn our thoughts to the one who is no longer with us but who has gone to the home everlasting it is with unwilling fingers we write the record of his life on earth, but the opening record of a new life beyond is being made, so we must submit to the Lord's will. Certainly we would not attempt to eulogize this fallen comrade, for too well he has left his eulogies indelibly stamped on the minds and hearts of those with whom he lived, labored and loved.

He lived the life of the true physician of whom it can truthfully be said—

"Forgetting self, he heeds your call  
Nor cares he what the hour;  
Your anxious heart is filled with hope  
You feel his hidden power.  
He enters softly—lest you sleep  
And sits beside your bed,  
He scans your face, a tender hand  
Is placed upon your head."

Most assuredly the physician is called of God.

H. A. Stroud, M. D.

R. H. Willett, M. D.

J. M. McCurry, M. D.

## PERSONALS AND NEWS ITEMS

The following have been elected post surgeons of the American Legion: Karlton H. Kemp, Texarkana; R. L. Armstrong, Stamps; Jeff Baggett, Prairie Grove, and J. K. Thompson, Fort Smith.

Dr. and Mrs. H. Fay H. Jones, Little Rock, spent a recent vacation on the west coast.

Dr. and Mrs. M. E. Foster, Fort Smith, spent a recent vacation in Michigan.

M. B. Hoge, Fort Smith, visited Mexico on vacation during August.

W. W. Hornsby, formerly of Mansfield, has moved to Midland.

Friedman Sisco has been elected surgeon of the Springdale post, American Legion.

Dr. and Mrs. Carl A. Rosenbaum, Little Rock, spent an August vacation in Colorado, Utah and other western points.

MARRIED—On July 26th at San Diego, California, Ralph G. Kramer, Fort Smith, and Miss Dolores Frank, San Diego.

Carroll F. Shukers and J. R. Trotter, Little Rock, have returned from a three-month survey on dietary habits of the Eskimos in Alaska.

E. J. Horner has been elected surgeon of the Jonesboro post, American Legion.

James J. Webb has been elected surgeon of the Blytheville post, American Legion.

Pearl Waddell has moved into her own office building at 125 North 14th Street, Fort Smith.

Gordon Oates is now associated with Ellery C. Gay in practice of plastic surgery at 426 Donaghey Building, Little Rock.

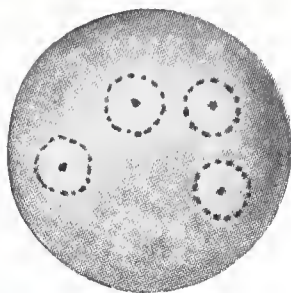
J. O. Rush, Forrest City, spent a recent vacation in western United States.

A. W. Thompson, Gurdon, and W. C. Overstreet, Jonesboro, have been appointed city health officers.

Thomas P. Foltz, who, following release from military service in 1946, has been serving a pre-



# AMEBIASIS



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1. D'Antoni, J. S.: *Amebiasis, Recent Concepts of Its Prevalence, Symptomatology, Diagnosis and Treatment*, Internat. Clinics 1:100 (March) 1942.

2. Manson-Bahr, P.: *Some Tropical Diseases in General Practice*, Glasgow, M. J. 27:123 (May) 1946



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## SEARLE

RESEARCH IN THE SERVICE OF MEDICINE



ceptorship in surgery at Los Angeles County Hospital, has returned to practice with offices at 603 First National Bank Building, Fort Smith.

Milton John has been elected surgeon of the Stuttgart post of the American Legion.

Dr. and Mrs. M. H. Scott, Fort Smith, spent a recent vacation in Colorado.

T. E. Williams has been elected second vice-commander of the Newport post, American Legion.

L. J. Kosminsky, Texarkana, attended the New York convention of the American Legion as delegate from the Arkansas department.

Allan A. Glibert and L. D. Massey have been elected post surgeons of the American Legion at Fayetteville and Osceola, respectively.

## BOOK REVIEWS

**Women in Industry—Their Health and Efficiency:** Issued under the auspices of the Division of Medical Sciences and the Division of Engineering and Industrial Research of the National Research Council. Prepared in the Army Industrial Hygiene Laboratory by Anna M. Baetjer, Sc. D., Assistant Professor of Physiological Hygiene School of Hygiene and Public Health, The Johns Hopkins Hospital. Philadelphia and London: W. B. Saunders Company, 1946. Price \$4.00.

This book presents the 'scientific facts which are known concerning the health and efficiency of women in relation to their employment' for the profit of physicians engaged in industrial practice. The many factors which enter into proper placement of women are fully discussed.

**Rehabilitation Through Better Nutrition:** University of Cincinnati Studies in Nutrition at the Hillman Hospital, Birmingham, Alabama: By Tom D. Spies, M. D., from the Department of Internal Medicine, University of Cincinnati College of Medicine. 94 p., 50 Fig. Philadelphia and London: W. B. Saunders Company, 1947. Price \$4.00.

This work covers an experience of ten years with over 10,000 patients and discusses clearly the common nutritional deficiency diseases. The principles of treatment are given and diets are given with specific recommendations. The clinical opinions are sound and the book will serve well both the general practitioner and the specialist in the various branches of medicine.

**Diseases of the Chest. I. With Emphasis on X-ray:** By Eli H. Rubin, M. D., Attending Physician, Division of Pulmonary Diseases, Montefiore Hospital and Country Sanitorium, New York.

**Diagnosis. II. The Principles of Surgical Treatment:** By Morris Rubin, M. D., Assistant Visiting Surgeon, Triboro Hospital and Morrisania Hospital, New York. Philadelphia: W. B. Saunders Company, 1947. Price \$12.00. This is a good presentation of the subject with over

three hundred good reproductions of chest roentgenograms which serve well to emphasize the text. The authors have drawn on an extensive experience in diagnosis and therapy to develop a practical guide to the practitioner who is specially interested in the chest.

**Muscle Testing—Techniques of Manual Examination:** By Lucille Daniels, M. A., Director and Associate Professor of Physical Therapy, Stanford University; Marian Williams, M. A., Assistant Professor of Physical Therapy, Stanford University; and Catherine Worthingham, M. A., Director of Professional Education, The National Foundation for Infantile Paralysis, Inc. Designed and Illustrated by Harold Black with 349 Diagrammatic Line Drawings. 189 pages. Philadelphia and London: W. B. Saunders Company, 1946. Price \$2.50.

This is a small, comprehensive manual with pertinent information for manual testing of the prime movers rather than for complete testing of any particular group. Grading procedure is carefully given for all classifications of function.

**Principles and Practice of Obstetrics:** By Joseph B. DeLee, M. D., Late Professor of Obstetrics and Gynecology, the University of Chicago; Consultant in Obstetrics, the Chicago Lying-in Hospital and Dispensary; and J. P. Greenhill, M. D., Attending Obstetrician and Gynecologist, the Michael Reese Hospital; Obstetrician and Gynecologist, Associate Staff, the Chicago Lying-in Hospital; Chairman Dept. of Gynecology, Cook County Hospital; Professor of Gynecology, Cook County Graduate School of Medicine. 9th Edition. 1011 pages; 1108 illustrations on 860 figures, 211 in color. Philadelphia and London: W. B. Saunders Company, 1947. Price \$10.00.

This edition is a completely rewritten text of DeLees' "Principles and Practice of Obstetrics" by Dr. Greenhill. New chapters have been added, a few have been omitted or combined with others, several chapters have been replaced completely by new ones and all the remaining chapters have been rewritten and new pertinent material added. The format of this ninth edition follows that being widely adopted today, a two-column page which at the same time with narrower margins carries more words to a page and is easier read. The bibliography at the end of each chapter contains the original reference for every name mentioned in the entire textbook.

An entire chapter has been added on "Minor Disturbances of Pregnancy" but to fully cover this subject would take a book unto itself so is necessarily incomplete.

The new chapter on "Fetal Erythroblastosis and the Rh Factor" is as completely covered and up to date as possible in a rapidly progressing comparatively recent subject.

Detailed information is given concerning the use of penicillin and the sulfonamides in the treatment of puerperal infection, mastitis, syphilis, gonorrhea and gonorrheal ophthalmia. The chapter on "Analgesia and Anesthesia" discusses the entire procedure of caudal analgesia and adds the new drugs demerol and divinyl ether.

The increase in the number of illustrations, so many in color, and the well written compact text will continue this book as an authority frequently consulted by specialist and general practitioner alike.

**New and Non-official Remedies, 1947,** containing descriptions of the articles which stand accepted by the Council on Pharmacy and Chemistry of the American Medical Association on Jan. 1, 1947. Cloth. Price, post-



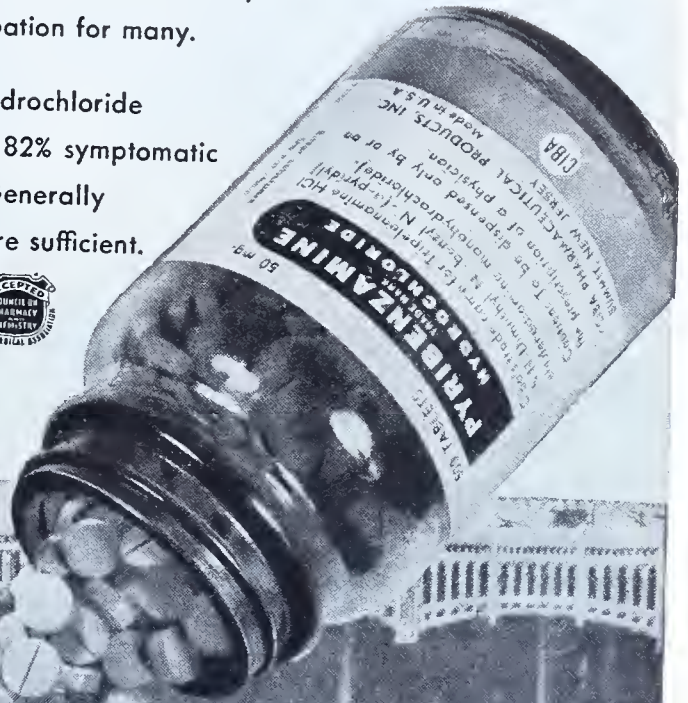


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# Pyribenzamine



# CIBA

PHARMACEUTICAL PRODUCTS, INC.  
SUMMIT, NEW JERSEY



paid, \$3. Pp. 749. Philadelphia: J. B. Lippincott Co., 1947.

Although the latest edition of *New and Non-official Remedies* has some eleven pages fewer than the 1946 book, its increase in size, due to the heavier paper used, and its change of color—dark green to bright red—combine to make a striking contrast with the earlier annual volumes. The book is now published by J. B. Lippincott and Company, though it is still issued under the direction and supervision of the Council on Pharmacy and Chemistry. Another innovation is the relegation of the statements of tests and standards to the back of the book, which makes the text more convenient and usable for the physician, for whom it is primarily intended. It is understood that supplements to the annual volumes will no longer be issued. The physician who is interested in current acceptances can keep track of these as the descriptions are published in the *Journal A.M.A.*, or may inquire about them by addressing the Council's office at A.M.A. headquarters. Several medical and pharmaceutical journals now carry lists of currently accepted products.

There appears to be no very extensive revision in the various general articles or chapter head discussions although several new monographs have made their appearance and others have been revised to reflect current medical opinion. One notes the appearance of a new chapter "Unclassified Therapeutic Agents" which includes the monographs on Gold Compounds and Iodine Compounds for systemic use. This is in line with the policy adopted some years ago of classifying accepted preparations according to pharmacologic action and therapeutic use.

Attention is called to the amplification and indexing of the section devoted to the statement of the Council's Rules. This should be of great assistance to manufacturers in the presentation of products for Council consideration and is, no doubt, inspired by the recent marked increase in the number of pharmaceutical concerns asking Council recognition.

The descriptions of some thirteen new preparations appear in this volume. This excludes, of course, brands or dosages of already accepted agents. Among those preparations noteworthy of mention are the pertussis vaccines and vaccines representing combinations of pertussis with diphtheria and tetanus organisms; the new histamine-antagonizing agent, Benadryl Hydrochloride Elixir (Diphenhydramine Hydrochloride Elixir); Furacin (Nitrofurazone) a new topical anti-infective agent; Streptomycin; Heparin Sodium; Parenamine, a new casein hydrolysate; Thiouracil, an anti-thyroid agent; Naphuride Sodium (Suramin Sodium) a new trypanocide; and Tuamine (Racemic 2-aminoheptane), a new vasoconstrictor. One notes the increasing appearance of generic designations in conformance with the revised Council's rules on acceptance of agents bearing protected or trademarked names.

*New and Non-official Remedies* remains a most valuable and authoritative compendium of modern rational therapeutics. With successive editions, it becomes more useful and accessible to the physician and to all those interested in the use, preparation, or manufacture of drugs.

**Gynecology with a Section on Female Urology:** By Lawrence R. Wharton, Ph. B., M. D., Assistant Professor of Gynecology, The Johns Hopkins Medical School; Assistant Attending Gynecologist, The Johns Hopkins Hospital; Consultant in Gynecology, The Union Memor-

ial Hospital, Hospital for the Women of Maryland, Sinai Hospital and Church Home and Infirmary. Second Edition. 1,027 pages, with 479 illustrations. Philadelphia and London: W. B. Saunders Company, 1947. Price \$10.

The author has written his text in a well-organized manner; in a style that makes for easy reading. The first part of the book is concerned with anatomy, embryology, congenital malformations and physiology. Considerable space is allotted to the normal functions of the female organs.

Child birth injuries and Gynecological Diseases are discussed fully under the appropriate headings. Illustrations of both gross and microscopic pathology, as well as operative techniques, are adequate. Treatment in most instances is specific and to the point.

The section on Female Urology, covering some 200 pages, is an excellent treatise on the subject.

There is a chapter on chemotherapy and antibiotics, and a short chapter on irradiation therapy.

Each section is followed by a bibliography of pertinent articles.

This book would make a valuable addition to the library of anyone interested in the subject.

**Annual Reprint of the Reports of the Council on Pharmacy and Chemistry of the American Medical Association for 1946.** Cloth. Price, postpaid, \$1; pp. 135. Chicago: American Medical Association, 1947.

This volume was formerly of most interest to those who wished to know why the Council on Pharmacy and Chemistry had not accepted certain of the preparations it had considered. The reports were mainly those of rejection; though, through the years, the educational nature of the Council's work was attested by status reports on drugs, or therapeutic procedures, or preliminary reports on agents showing promise of usefulness but not yet ready for adoption by the general and medical profession. In recent years, the tendency has been toward a preponderance of the educational type of report. In the present volume, both the condemnatory and the educational phases of the Council's work are represented.

There are three reports of vigorous condemnation: first, the report on Cabasil, a curiously unscientific mixture whose exploitation for use in a multitude of diseases is aptly summarized by the sub title of the report, "Quackery Unlimited"; second, the report on the pseudo-scientific Ethylene Disulphonate (Allergosil brand), a preparation of highly uncertain nature exploited to physicians for use in allergic conditions; third, Formula A-N-1, a joint report of the Council on Pharmacy and Chemistry and the Council on Industrial Health, concerning an expensive but poor substitute for aspirin and citrate of magnesia, cleverly promoted to industrial concerns for use in reducing absenteeism due to colds.

Among the status reports, the excellent article of Dr. Samuel M. Feinberg, "Histamine and Antihistaminic Agents," is probably most worthy of mention. Since its appearance, the Council has accepted for inclusion in *New and Nonofficial Remedies*, the two new agents of this class evaluated in the article, Diphenhydramine Hydrochloride, and Tripeleminamine Hydrochloride (Benadryl Hydrochloride and Pyribenzamine Hydrochloride, respectively).

Pharmaceutical and scientific investigators, alike, will be interested in the informative report on the Council's new Therapeutic Trials Committee. Of special interest to manufacturers is a statement on the revised rules of the Council, though this exposition of the trends of Council



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policy is of concern to all who are interested in progressive rational therapeutics.

Attention is called to the several reports on the adoption of generic designations for drugs proposed or marketed under protected names. Not all such actions of the Council have been the subject of separate published reports; the recognized terms have appeared in the published descriptions of the drugs when accepted and will be inserted in another Council publication, *New and Non-official Remedies*, as adoption of such designations for already accepted protected names proceeds.

### SILVER ANNIVERSARY CONFERENCE Kansas City Southwest Clinical Society

The Annual Fall Clinical Conference will be held in the Municipal Auditorium and the Hotel President, October 6, 7, 8, 9, 1947.

The list of outstanding guest speakers who will participate in the four-day conference can be found in this issue of the Journal. These teachers will take part in the general assemblies, round table luncheon question and answer periods, and some of the sectional lecture series.

Five series of sectional group lectures will be presented concurrently the mornings of October 7th, 8th and 9th. These talks will be concise, on problems of interest to physicians in their daily practice, many with patient demonstration. Four of the series will be held in the President Hotel; the fifth in the Little Theatre.

Two round table luncheons will be held daily—

one for the medical and the other for the surgical groups. This feature is a part of the scientific program with ample time following the luncheons for the registrants to direct questions to any of the guest speakers—all of whom will attend the luncheon each day.

A joint meeting with the county medical societies will be held Monday evening. This will be a clinicopathologic conference, directed by Ferdinand C. Helwig with Doctors Wm. E. Adams, Robert Elman, George Ewell, Howard K. Gray, Russell L. Haden, John S. Lockwood, Robert A. Moore, Eugene Pendergrass, Leon Schiff and Willard Thompson participating.

Tuesday evening's "Stag Party" will provide wholesome entertainment with excellent food from the President's cuisine.

Additional features include scientific exhibits and movies; technical exhibits, and radio broadcasts by our guest speakers.

Your registration fee of fifteen dollars includes all of the above features without additional charge to you.

Special arrangements have been made by the women's committee to entertain the wives of the registrants.

The complete program will appear in the September-October issue of the *Kansas City Medical Journal*, which will reach your desk in mid-September.

## Kansas City Southwest Clinical Society *25th Annual Fall Clinical Conference*

DATES: October 6, 7, 8, 9, 1947

PLACE: Kansas City, Missouri

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Wm. E. Adams (Ch. S) Chicago  
Guy A. Caldwell (Or) New Orleans  
Roland S. Cron (Ob. G) Milwaukee  
Joseph S. D'Antoni (Trop. Med.)  
New Orleans

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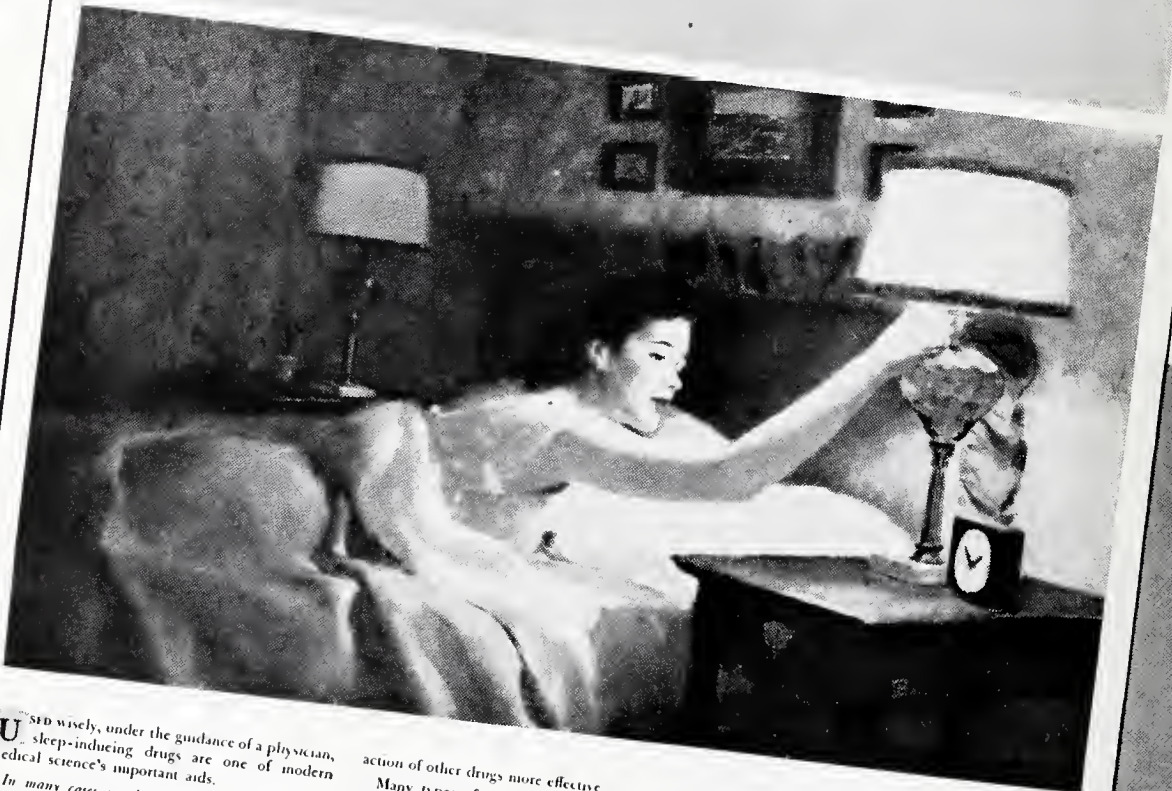
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# The JOURNAL

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### DIAGNOSIS AND TREATMENT OF DISORDERS OF LUNG REQUIRING SURGICAL RESECTION<sup>1 2 3</sup>

J. K. DONALDSON, M. D.  
Little Rock

The field of thoracic surgery has developed with rapidity unparalleled in surgical history. It has been very difficult if not impossible for the general practitioner, as well as for many others not specializing in the field to follow this development in detail. Consequently diagnostic concepts in general have necessarily lagged somewhat behind therapeutic possibilities offered by the relatively few who have devoted special attention to thoracic surgery.

Most, if not all of you,<sup>1</sup> are familiar with many fundamental aspects of problems to be discussed here; for example general pathology of carcinoma, of bronchiectasis. Consequently many

<sup>1</sup>This paper was presented from lantern slides and with some illustrative patients at the 71st Annual Session, Arkansas Medical Society, Little Rock, April 18, 1947.

The clinical material furnishing the immediate basis for the presentation was from University Hospital, St. Vincent's Infirmary, Little Rock, Arkansas; and the General Hospitals where it was the author's privilege to serve as chief of surgical service during World War II.

<sup>2</sup>The author wishes to acknowledge the indispensable assistance of those who have participated at one time or another in the chest (thoracic) clinic from the time of reactivation of this clinic after World War II to date. Drs. Jerome Levy, Doyle Fulmer, R. E. McLochlin, W. B. Grayson, B. B. Wells, (which latter despite heavy administrative duties has given much assistance from time to time), Gilbert Dean, Daniel Autry, P. J. Almaden, Wm. H. Siddon, D. A. Rhinehart, and B. A. Rhinehart are among those who have cooperated with and assisted the author.

Dr. Paul Mahoney and members of his staff at University Hospital as Drs. John Wm. Smith, John G. Watkins, Jack Brizzolara, have furnished the bronchoscopic examinations and relevant consultations which are indispensable to any thoracic surgery service.

Dr. Mahlon Prickett administered anesthesia in most of the operative cases handled at University Hospital and St. Vincent's Infirmary.

<sup>3</sup>Assoc. prof. of surgery in charge of thoracic surgery, University of Arkansas, School of Medicine.

academic considerations regarding the disorders discussed, will be deleted.

Our principle objective will be to correlate relevant clinical pathology with modern diagnostic and therapeutic concepts in the interest of earlier diagnosis and treatment. Obviously early diagnosis is the first step toward improved therapeutic results in dealing with surgical disorders of the chest.

For simplification, the principle surgical non-traumatic disorders of the chest which may require removal of part or all of a lung may be divided into three classes. (There are certain pathologic entities which do not fall into this classification. However, these are rare; and are not of practical importance to the objectives of the presentation. The following classes are those with which we are principally concerned.)

1. Tumors and cysts of lung.
2. Bronchiectasis.
3. Certain infectious disorders of lung.

### TUMORS AND CYSTS OF LUNG

#### Tumors

#### Relevant Clinical Pathology of Malignant and Benign Tumors of Lung (Bronchus)

**Incidence:** Malignant. Commonly occurring, nearly always carcinoma, more frequent in men, (about 5 to 1). In the male, superseded in frequency only by carcinoma of stomach, possibly of prostate.

**Benign.** Comparatively rare, though with improved diagnostic methods we are finding them more frequently than previously. Carcinoma of lung (bronchus) occurs however about 50 times more frequently than the truly histologically benign tumors.

**Causes of Death:** It is of interest and of practical importance to note that in the final analysis both the malignant and histologically benign tumors are highly fatal; and in general kill the patient by creating the same complications.

It is of paramount importance from both the pathologic and diagnostic standpoint to realize that partial or complete blockage of the bronchus by either the benign or malignant tumor causes



atelectasis, pneumonitis, often abscess of lung, sometimes empyema; that these complications are the usual ultimate cause of death.

It is true of course that with the histologically malignant tumors, the mediastinum becomes caked with metastatic malignant tissue if the patient lives long enough. Extension to the thoracic wall or distant metastasis may occur. Nevertheless death not infrequently occurs from pulmonary complications when inoperable metastasis actually is not present.

With the malignant tumor inoperable metastasis is quite likely to come about in within 12 to 14 months from time of onset of symptoms; in many instances will have come about within a year or less from onset. And as with carcinoma elsewhere, high incidence of cure can be expected in proportion to diagnosis made in early months of symptoms, say one to six.

No statistics are available to indicate definitely the average length of time which it takes for the "benign" tumors to kill unless proper treatment is rendered. As an arbitrary statement one may say that possibly the so-called histologically benign tumor may not kill the patient for as much as five or ten years (sometimes longer) after onset of symptoms. But we must remember that many serious complications from obstruction of a bronchus may have arisen long before this time has supervened; that such complications may kill the patient in a particular case, as quickly as if the tumor had been histologically malignant. The earlier the diagnosis of the so-called benign tumor is made the better the patient's chance for recovery.

### Diagnosis of Malignant and Benign Tumors of Lung (Bronchus)

We who are especially interested in thoracic surgery continually stress the grave responsibility of the general practitioner in early diagnosis, too often without discussing the difficulties attending this responsibility.

Difficulties in diagnosis are often appreciable. Only by bringing these into the foreground and establishing a routine of diagnostic procedure which is as safe, sure, and practical as possible can we circumvent delayed diagnosis and feel that we have discharged our responsibility to the best of our ability whatever be the outcome.

Signs and Symptoms of Tumors of Lung: There are no pathognomonic or "cardinal" signs and symptoms of either malignant or benign tumors of lung. The sooner we accept this fact, the earlier in general will diagnosis be made.

Increased cough, pain in chest, history of attacks of "bronchitis," "flu" or "pneumonia," frothiness and/or increase of mucoid or even purulent sputum, hemoptysis, wheeze audible to the patient or to the physician with or without stethoscope, all are possible early signs and symptoms of tumor of lung (bronchus). Yet none of these manifestations occur consistently in every patient in the early stages. And furthermore one readily understands that these signs and symptoms can apply to many other disorders of the bronchial tree and lungs besides neoplasias, thus offering considerable possibility of confusion.\*

Later as erosion and extension of growth occurs, complete or partial occlusion of the involved bronchus usually presents itself; and atelectasis of lung develops distal to the growth as occlusion becomes severe. Stasis in the bronchial segment, bacterial proliferation occurring distally to the blocked bronchus and eroding into the parenchyma of lung will cause pneumonitis, probably abscess of lung; and eventually empyema as discussed under Pathology. These complications may occur with the growth not having metastasized beyond the stage of operability. Consequently one must not consider these findings in general those of inoperability. Yet, along with loss of weight these complications, important within themselves, must in general be considered late manifestations.

Differential points between benign and malignant tumors: The malignant tumors occur more frequently after the age of 40, the benign tumors more usually under the age of 40. This however is an arbitrary rule. Carcinoma occurs quite frequently below the age of 40; and has been reported even in infants (though most unusual of course in the latter). And "benign" tumors have been reported in patients in later life.

Longer duration of symptoms, that is possibly a history of recurring "pneumonia" over a period of three or four years (diagnosis having not been made previously, as it should have been if possible) will of course assist one in suspecting a benign tumor as contrasted with the very advanced pathology which would exist had a patient with a malignant tumor lived more than two years.

There seems to be somewhat more of a tendency to repeated hemoptysis with the benign tumor. This may possibly be due, at

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\* For comment regarding differential diagnosis of Pulmonary tuberculosis and tumor of lung, see page 114.



least in part, to longer average duration of the clinical course of the benign tumor.

From the statements just made it becomes obvious as previously indicated that it is impossible to formulate a reliable single rule for interpreting early signs or symptoms of tumors of the lung (bronchus). Therefore the problem of diagnosis to this point resolves itself that one must rely upon the judgment of the experienced practitioner who takes a reliable history from his patients, to differentiate as to when and when not an upper respiratory manifestation may require specialized diagnostic procedure to rule out tumor of lung (bronchus).

Somewhat in repetition, the following suggestions are made:

A. Be sure to understand points of clinical pathology discussed above; the manner in which tumors of lung (bronchus) progresses and give their pathologic and diagnostic manifestations (as blockage of bronchus and secondary pneumonitis, with symptoms simulating chronic bronchitis, "flu," "cold," or tuberculosis).

B. Thus, be sure to be alert for recurring even casually atypical, intrathoracic "upper respiratory" manifestations. Take the history carefully and devote astute clinical observation to every patient presenting such manifestations.\*

Having fulfilled this definitely important part of the task of diagnosis of the tumors of the lung (bronchus) then the general practitioner is in position to effect or recommend definitive diagnostic procedures for possible tumor of lung (bronchus).

**Definitive Diagnostic Procedures:** Many diagnostic "procedures" have been discussed and in their multiplicity have lead to some confusion. Iodized oil instillations (bronchography), aspiration biopsy, microscopic examination of sputum or bronchoscopically obtained secretions and of pleural effusion for tumor cells, examination of blood for certain chemical dysbalances have all been declared at times as of diagnostic value.

Bronchography is of value as a differential diagnostic procedure, regarding for example bronchiectasis and cysts of lung. Unfortunately, however, bronchography is not specifically diagnostic for tumors of lung (bronchus). Examinations of bronchial secretions for tumor cells by Papincolau smear, by pathologists experienced in the technique are of considerable value but still carry an unavoidable percentage of error. The other procedures mentioned in the para-

graph just above are of limited value in the diagnostic armamentarium of most physicians, and for that matter have variable application among thoracic surgeons.

If the physician has not been able to rule out tumor with routine history taking, physical examination,\* and other measures mentioned above, the following steps should generally be followed or recommended until one is satisfied that the tumor does or does not exist:

1. Roentgenographic studies.

2. Bronchoscopic examination (supplemented if indicated by microscopic examination of bronchial secretions by Papincolau smear).

3. Exploratory thoracotomy.

What help may one expect from roentgenographic studies? Roentgenographic studies of the chest are indispensable, the first step to be undertaken in definitive diagnostic laboratory procedure; yet such studies are not definitely diagnostic. It is almost impossible for even the expert roentgenologist to be other than suspicious of the existence of the early primary carcinoma. The roentgenologist's assistance is as just indicated, indispensable to us; but we must not expect the impossible of him.

One appreciating the pathology of early neoplasia of lung (bronchus) can readily understand why the roentgenologist cannot be expected to diagnose specifically for example a non-radio-paque mass  $\frac{1}{4} \times \frac{1}{4} \times \frac{1}{4}$  cms. or larger in dimension within the lumen of a bronchus, whether or not the mass has produced occlusion of the bronchus. Since the usual complications of these tumors are atelectasis, pneumonitis, abscess of lung, and sometimes empyema as discussed above, the roentgenologist, not knowing the history of the case may return a reading of pneumonia, atelectasis, abscess of lung, pneumonitis, possible tuberculosis\* "widening of mediastinal shadow," "thickening of hilus," et cetera, without mentioning even the possibility of tumor of lung. Whenever practicable the roentgenologist should be given the benefit of the history in a suspected case of tumor of lung, in order that he may correlate this history with his interpretations.

What assistance may one expect from bronchoscopic examination? Bronchoscopic examination is also absolutely indispensable in our diagnostic armamentarium. Without this procedure the field of thoracic surgery would be far less

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\* For comment regarding differential diagnosis of Pulmonary tuberculosis and tumor of lung, see page 114.

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advanced than it is at present. Yet, just as with roentgenologic studies, we must realize the limitations of the procedure if we are to achieve maximum diagnostic and therapeutic results.

Unfortunately only about 50 to 65 per cent of tumors of lung (bronchus) are within range of vision with the bronchoscope. (As indicated previously microscopic study of secretions from bronchus may be of value but further discussion of this point is not of practical value here).

What may one expect from exploratory thoracotomy, and what are general indications for the latter as a diagnostic procedure?

From discussion above it is understood that we have no infallible means of diagnosing preoperatively tumor of lung in all cases. And the consensus now is that exploratory thoracotomy is indicated and necessary for diagnosis in some cases.

During exploratory thoracotomy one may of course visualize, palpate, and even at times biopsy a suspicious area. One may nearly always reach proper conclusions by exploratory thoracotomy as to whether pneumonectomy is indicated, providing proper preoperative study has been made.

Exploratory thoracotomy should be performed only after most serious consideration. It should not be used as a diagnostic procedure in lieu of other less radical measures. Yet, it may be compared in value to exploratory laparotomy. Certainly we know that in dealing with a confusing intra-abdominal condition as carcinoma of head of the pancreas, diagnosis without exploration of the peritoneal cavity is sometimes impossible if one wishes to reveal the disorder while it is still in an operable stage.

**Diagnostic Comment Pertaining to Tuberculosis Versus Tumor of Lung:** There is still a tendency for many patients to assume that any chronic upper respiratory manifestation most likely indicates pulmonary tuberculosis. There may still be too much of a tendency for a busy practitioner to refer too quickly a patient with chronic cough or other upper respiratory manifestations to a sanatorium for tuberculars.

It is of some importance that the physician who originally sees the patient attempt to determine as soon as he can with whatever facilities are available to him whether or not the lesion in the lung probably is or is not one of tuberculosis. If the lesion is probably non-tuberculous and tumor is a possibility, then all available diagnostic procedures should be used promptly to attempt to determine whether tumor is present. If the patient is sent to a sanatorium for tuber-

culosis to rule out this disorder a delay of three or four months more or less, may pass while routine of admittance to the institution is effected, observation is being carried out and the disorder ruled in or out.

The expert roentgenologist can often (not always) differentiate between roentgenographic patterns of primary tuberculosis and tumors of lung (bronchus). Obviously however, microscopic examination of sputum or other diagnostic studies for tuberculosis may be indispensable in ruling out tuberculosis.

A series of three or more reports regarding sputum which has been collected and forwarded to proper laboratories together with clinical observation should usually tell us whether cavitation in the lung in a particular case is or is not tuberculous. (Remember, however, that sometimes malignancy is associated with tuberculosis).

**Slides:** These two slides demonstrate respectively an X-ray plate and an autopsy specimen of cavitation in lung, which cavitation at first was diagnosed as tuberculous.

The patient according to history, was treated at home for over a year from onset of symptoms with diagnosis of "probable" tuberculosis even though no tubercle bacilli were found in the sputum.

Upon reporting to us a few months previous to death she was advised to have exploratory thoracotomy performed after our other diagnostic procedures, including bronchoscopy, failed to establish definite diagnosis. She refused the recommendation; and returned almost moribund, several months later. Operative procedure then obviously would have been hopeless, and was not done.

The **second** slide shows photograph of specimen from autopsy. Craggy necrotic squamous cell carcinoma, located centrally in the lung, had necrosed and excavated.

Cavernous type of carcinoma such as this, is present in possibly 13 per cent of cases of carcinoma of lung (bronchus).

See discussion of slides below for other roentgenologic findings in carcinoma of lung.

**Slides:** This patient, the widow of a physician, had a history of reoccurring pneumonitis, low-grade temperature. She had been treated or under observation (mostly at home) for pulmonary tuberculosis 18 months from onset of symptoms.

After the patient became practically bedridden she was sent to a sanatorium for tuberculars which necessarily entailed additional delay in diagnosis. She was released from the sanatorium with the diagnosis of probable tumor of lung.

At the time the patient reported to us she was having intractable pitiful cough, was quite emaciated from toxic absorption and reoccurring pneumonitis, had been bedridden for several months.

The reproduction (lantern slide) of X-ray plate shows a mass four to five cms. in dimension in the lower lobe of the left lung. In this instance the contour of the tumor, the shadow, the size, "general characteristics," the advanced degree of pathology, enabled the roentgenologist to make a relatively positive diagnosis of "tumor" of lung. Yet the tumor was beyond range



of vision through the bronchoscope. The only positive statement the bronchoscopist could make was that there was some "exudate" coming from the lower lobe of the left lung.

Incidentally study of sputum for tumor cells was non-revealing.

In deciding to do exploratory thoracotomy we considered the following:

a. Definite diagnosis had not been established despite exhaustive efforts; and there seemed some chance that the lesion might be a benign tumor.

b. Following the consensus of many experienced thoracic surgeons, there is an occasional case in which palliative pneumonectomy is indicated much as is palliative resection for advanced carcinoma of the stomach, even though complete cure may not be expected.

At operation the mediastinum was found involved with an appreciable amount of metastatic carcinoma. The hilar glands were dissected from within the mediastinum with some difficulty, and with definite risk of uncontrollable hemorrhage ensuing if larger hilar vessels were torn during the dissection.

The patient lived a little over a year after the total pneumonectomy. Within about four weeks after the operation she began to participate in some social activity. She became buoyant in spirits and enjoyed apparent good health for about six months. She then began to suffer some discomfort in the chest which was relieved with mild sedation. During the last two or three months before she died (a little over a year after operation) from reoccurring metastatic carcinoma in the mediastinum, she again became bedridden. She remained free however from the pitiful cough and pulmonary suppuration which had been present previous to the pneumonectomy; and to time of death suffering was much less severe than it had been during the few months which had preceded the operation; less severe than it would have been in the terminal stages had pneumonectomy not been performed.

This case is not presented in any attempt to condone radical and injudicious operative procedure for hopeless cases of carcinoma of lung. However, the case lends some strength to the consensus now prevalent among thoracic surgeons as well as others, that sometimes palliative pneumonectomy is worthwhile.

Slides: These next slides are reproductions from a case which is quite instructive regarding roentgenologic, bronchoscopic, and therapeutic problems of tumors of lung.

This patient, a white female age 30 years, was attacked two and one-half years previous to being referred to us, with "pneumonia" of "two or three" weeks' duration.

After reoccurrence of the cough, bronchitis, temperature, and "pneumonia" on two subsequent occasions, she went to Arizona for cure of suspected tuberculosis. (Apparently her own diagnosis).

After reaching Arizona she had another "attack" diagnosed, she said, as "pneumonia." She was placed at once, she said, on "sulfa and penicillin." "Straw-colored pleural effusion formed." The latter was aspirated and she stated that "no evidence" of the pleural effusion being "tuberculous" could be found. After the patient's recovery from this attack of "pneumonia" she returned to Arkansas.

A few weeks after her return she had mild hemoptysis. Following reoccurrence of this she again reported to her family physician and through him came under our observation.

Slides: Because of the history of three or four attacks

of "pneumonia," atelectasis of middle lobe of right lung to roentgenographic study, the generally good condition of the patient at the time of our observation, the two and one-half years duration of symptoms, we considered two diagnoses: pulmonary cyst, and benign tumor of lung (bronchus). We realized that cyst of lung (as the case to be presented in a later slide) can become intermittently filled, occluded, infected, emptied out by expectoration, and present normal roentgenograms between "attacks."

Diagnosis of tumor of bronchus was established by bronchoscopic examination and biopsy. Pathologic studies made by Drs. Rigdon and Jernigan, revealed the tumor as of "circinoid" adenomatous character. Such tumor may metastasize or "become frank carcinoma." Treatment is at least lobectomy, some believe always pneumonectomy with dissection of regional lymph nodes.

The next slide shows the tumor extending into the right main bronchus. The right lung was removed by total pneumonectomy as shown in the slide, dissection of lymph nodes being performed as necessary.

We believe permanent cure was obtained in this case.

### Treatment of Primary Tumors of Lung (Bronchus)

1. Malignant tumors: The malignant tumors, nearly always carcinoma, metastasize as previously stated, to (regional) hilar and mediastinal lymph nodes much as carcinoma of breast metastasizes to axillary nodes.

Treatment is usually total pneumonectomy with removal by dissection of regional lymph nodes (as generally effected for carcinoma of breast). Lobectomy is rarely considered a feasible procedure since it does not permit removal of all regional lymph nodes.

Radium and X-ray therapy in present stage of development are considered of no curative and of doubtful palliative value. Experimentation regarding supervoltage therapy is being conducted; but it does not appear that roentgen therapy alone can offer real hope for cure of tumors of lung for at least many years to come.

Compounds of nitrogen - mustard gas, as Methy-Bis, also are of no curative value at present. They are possibly of some palliative value, as may be injections of cobra-venom.

2. Benign tumors: As previously discussed, adenomata, "chondromata" and other histologically benign tumors eventually will become histologically malignant in an appreciable percentage of cases, in addition to causing other complications discussed under Pathology.

Also the limitations of biopsy specimens are that they too often do not reveal the true histologic nature of all the tumor, nor the degree of invasion of the base of the tumor into wall of bronchus, whether this "invasion" of the bronchus is histologically benign or malignant.

Complete extirpation or destruction, (a practice long recognized in general surgery for



similar lesions elsewhere), would be the treatment for these "benign" lesions. Incidence of reoccurrence and malignant "degeneration" in the residual parts of an incompletely removed benign tumor of lung (bronchus) is high.

Previously it was hoped that many of the benign tumors could be removed by the bronchoscopist. Experience has revealed however that the bronchoscopist usually is not able to remove all of the tumor from within the wall of the bronchus without causing mediastinitis or perforating the bronchus. Treatment by radium or radon, and diathermic coagulation is subject to the same general limitations.

It is only occasionally that tumors as the small, thin-stalked papillomatous one, can be snipped of adequately at its base by the bronchoscopist.

Lobectomy or pneumonectomy, depending upon the type and location of the "benign" tumor, is usually the treatment of preference.

Mortality Rate for Operative Procedures: The present mortality of pneumonectomy for malignancy is between five to 25 per cent depending upon the degree and type of pathology present and the attitude of the surgeon toward attempting to alleviate advanced pathology at the risk of a high mortality rate.

The mortality rate of pneumonectomy or lobectomy for "benign" tumors of the lung operated before serious complications have occurred is between two and five per cent.

### Cysts of Lung

Cysts of lung probably occur with a little greater frequency than previously suspected; but are quite rare as compared to malignant tumors of lung. Malignant tumors probably occur at least 50 times more frequently than cysts of lung.

Much legitimate discussion and academic disagreement has occurred regarding the embryology, etiology, and classification of cysts of lung.

For practical purposes however, these cysts may be divided into congenital and acquired types.

Without further comment regarding acquired cysts we will point to the unusual incidence of hydatid cysts in this country. (This very unusual cyst is the more frequent of the acquired "true" cyst). We will place other true cysts of the lung as either obviously congenital at an early age or else those in which congenital abnormality or "predisposition" are present even though symptoms do not become manifest before adolescence.

The congenital types may be divided into the

single and multiple cysts. The unilateral congenital true cyst of the lung, though rare, probably occurs more frequently than multiple cysts, some opinion to contrary. The multiple cysts at present status of study more usually manifest themselves as the long recognized "multiple polycystic disease" of lung.

If the cyst contains fluid, differentiation from ordinary abscess of lung may be difficult or impossible at times if the fluid is infected.

In the unusual instance of teratomatus or dermoid cysts radiopaque substances may be revealed by roentgenographic study.

Supplementary instillation of iodized oil (bronchography) will often assist in diagnosis (as presented in slide).

In considering diagnosis, one must remember that tension-cyst (air aspirated and trapped by valvular, "ball-valve" affect may simulate pneumothorax; or that rupture of a cyst may produce actual pneumothorax). This is true in all stages of life from infancy on.

This patient (a male about 33 years of age) gave a history of six bouts of reoccurring attacks of "pneumonia" (each of two to six weeks duration) over a period of two and one-half years preceding admittance. He had been studied for tuberculosis during two admittances to a sanatorium, with negative results regarding the disorder.

The first slide shows a complete bronchogram with a rather circumscribed clear-cut area in lung containing a small amount of iodized oil. The cyst is situated in the supero-dorsal part of the lower lobe of the right lung.

The next slide shows the cyst after it had been removed. The following slide shows lung expanded two weeks postoperatively, filling the pleural cavity as normally.

Experience teaches that when the single cysts become manifest as last in life (adulthood) as this one, additional cysts are not likely to "develop."

Treatment: "Multiple bilateral polycystic disease" is obviously not amenable to surgical resection. One can only treat complications of these cysts as these complications arise i.e. abscess of, possible tension pneumothorax from rupture of cyst or tension within the cyst itself; pneumonitis secondary to infection within the cyst.

The single cysts with rare exception, should be removed providing the patient's general condition permits, by segmental resection of lung, lobectomy, or clean dissection of the cyst in some instances. (Marsupialization is an undesirable procedure to be avoided if practicable).

Experience proves that patients with true pulmonary cysts will usually not live past middle age without curative treatment. (Latter not possible, as stated above, with "multiple bilateral polycystic disease"). Infection, generalized pneumonitis, superimposed malignancy, are the usual



complications which make prognosis poor unless surgical cure is effected.

Occasionally as indicated above, one may have a tension cyst with air aspirated and trapped in the cyst by valvular or "ball valve" effect, to extent that aspiration of the air by needle is imperative for temporary relief. However aspiration of a cyst is contraindicated in general, if surgical extirpation is feasible. Not only does such aspiration fail to cure the condition but will traverse in many instances a free pleural cavity giving rise to empyema.

Instillation of corrosives into a pulmonary cyst for attempt at obliteration of a cyst, is contraindicated.

### Bronchiectasis

Most members of the society are in general well informed regarding this relatively common disorder; and in accordance with statement made in the beginning of the presentation, time and space therefore will not be devoted to lengthy academic discussion of bronchiectasis.

We know of course that the signs and symptoms of bronchiectasis may be similar to those of cysts, chronic infectious disorders of the lung, chronic pulmonary abscess, and tumors (benign especially).

It is especially important however to realize that bronchiectasis may be secondary to other disorders primary in the lung; to realize that occlusion of a bronchus and/or primary parenchymal infection of surgical nature within itself may have caused dilatation in the bronchial tree; that "primary" bronchiectasis may not be the sole disorder. Among primary disorders which may cause "secondary" bronchiectasis are tumors of bronchus, pulmonary cysts and abscesses; and especially the "unusual" infectious disorders of lung to be discussed below. These latter progressively destroy the parenchyma of lung and damage bronchial tubes to extent that even though some bronchiectasis is present the primary infectious disorder as indicated above, may be the disorder of primary importance. For further discussion see below.

Bronchography (iodized oil instillations and roentgenographic study) is of course the definitive diagnostic measure to be effected for bronchiectasis. All of both lung fields should be studied in many cases from viewpoint of differential diagnosis as well as from the therapeutic viewpoint discussed immediately below.

The first slide shows roentgenographic studies revealing multiple, large, saccular bronchiectatic pockets in the left lower lobe and the lingula (equivalent to middle lobe of right lung). Obviously these pockets were "cess-pools" for collection of purulent material.

The next slide shows a quart jar filled with extremely

offensive sputum collected from this patient within 24 hours.

The patient, despite diligent postural drainage was unable to keep his bronchial tree free from collecting pools of pus, was never free from temperature, carried an extremely offensive breath, was somewhat emaciated and debilitated; and in general was of no value to himself or others. Postural drainage is a most valuable procedure, yet it isn't always as effective and simple as turning a bucket upside down and emptying it.

This patient, a young adult, after removal of lingula and the lower lobe of the left lung several years ago, is as far as we know living a normal existence at present; and is exemplary of the great benefits offered by surgery in properly selected cases of bronchiectasis.

**Treatment of Bronchiectasis:** Recalling the pathology of bronchiectasis we realize that the elastic tissue within the walls of the diseased parts of bronchus has been replaced by fibrous tissue. Resiliency of this part of the bronchus has been lost permanently.

If the damage is not too extensive and if we can prevent further damage by conservative treatment we should generally do so. If the damage is too extensive, or progressive despite conservative measure, surgery is generally indicated. Certainly penicillin or drug-therapy may alleviate toxicity but cannot correct permanent dilations in the bronchial tree.

In summary regarding the treatment of bronchiectasis the following general statements might be made:

1. Surgery is almost invariably indicated in children when symptomatic bronchiectasis is present. Pathology manifest at early ages will gradually progress. Children are usually excellent operative risks for segmental pulmonary resection or lobectomy.

2. In young adults the same general statement just made, applies.

3. In middle aged adults with "primary" bronchiectasis which apparently is not progressive, efforts generally should be made to control the condition by alleviating aggravating agents as sinus trouble and recurring upper respiratory infections. Postural drainage (head and chest down for five to 20 minutes) generally should be effected morning and night in such cases to assist in evacuating the bronchial tree of collected secretions.

In the middle-aged adult however in which the condition is quite definitely symptomatic, moderately or more advanced and progressive, surgical resection should be seriously considered. Operative procedure in the good-risk, middle-aged adults causes about three to seven per cent mortality.

4. In old people one should make every effort to control the condition by conservative measures.



### Certain Primary Infectious Disorders of Lung Which May Necessitate Resection

It is obviously quite important that one not misinterpret pneumonitis arising secondary to disorders previously discussed, (tumors, cysts, bronchiectasis) as ordinary pneumonia. It is equally important that one not confuse "unusual" primary infectious pneumonitis with "ordinary" pneumonia, tuberculosis or lung-abscess.

**General Points of Pathology:** Our immediate purpose here is to focus attention on potential surgical pathology which may be caused by microorganisms other than the usual pyogenic ones, and by virus agents—which pathology is not of the nature of the usual pulmonary abscess with which we have long been familiar.

The "ordinary" primary pyogenic infectious disorders of lung which we have recognized for years have of course been caused by the usual pyogenic microorganisms as (more usually) the pneumococcus, staphylococcus or streptococcus. Residual pathology from such infections is prone to localize as an ordinary abscess of lung which may be treated by surgical drainage.

We now know that fungous, possibly rickettsial, tularemic virus and (possibly) other infectious agents which we have not as yet identified, cause pneumonitis, at times pulmonary cavitation, secondary bronchiectasis and general damage to parenchyma of lung which may require surgical resection instead of surgical drainage. This type of pathology about which we have more to learn, does not become localized and "encapsulated" as does the ordinary pyogenic abscess. Such pathology has often been misdiagnosed as that of pulmonary tuberculosis.

Its similarity clinically, to tuberculosis is often very marked.

This relatively common and most interesting type of pathology may be classified for purposes of discussion, as non-odoriferous in type. The sputum from it has some odor. But the odor may be very minimal. And at least the odor is not as potent and offensive as with the usual pyogenic pulmonary abscess, excepting sometimes when the usual pyogens invade the pathologic field secondarily.

This patient, a young adult, was admitted to University Hospital with disease in upper lobe of the right lung. The disorder appeared roentgenographically as most probably tuberculous. Cavitation soon developed. The patient ran 100½-degree temperature in the afternoons. Sputum, not excessive in quantity (ounces six to eight per 24 hours), was grayish and relatively non-odoriferous.

The staff of the medical service made very careful studies for pulmonary tuberculosis over a period of three months. These studies included cultures, guinea-pig in-

oculation, study of gastric contents. They revealed no evidence of pulmonary tuberculosis.

At the end of approximately three months after admittance the entire right lung had become involved in inflammatory reaction and cavitation which roentgenographically appeared of tuberculous pattern.

The left lung remained free from roentgenographic evidence of disease.

The entire right lung was removed surgically. The lung was taken within a few minutes after it had been removed to the bacteriologist and pathologist (Dr. Wahlin, Dr. Wilbur); and was incised with sterile technique. Specimens for smears and cultures were taken from the cavities in the lung. "Non-odoriferous" exudate was present in these cavities. No growth whatever could be obtained. Conclusion was that either a virus agent or possibly a fungus which could not be cultured, had caused the damage to the lung. The cavities obviously were not of tuberculous origin.

The patient made an uneventful recovery.

The left lung during a postoperative observation period of approximately one year did not become involved in disease. As far as we know the patient is in good health to the present time.

The next two slides show respectively a left lower lobe and a right upper lobe removed in patients with histories similar to that of the patient just discussed; and in neither instance could definite conclusions be reached postoperatively regarding primary etiologic agents. The pathology was not tuberculous.

**Diagnosis and Treatment:** General points of diagnosis and treatment of the "non-odoriferous" type of pathology discussed in this section of this presentation, have been indicated above in discussion of pathology, and in presentation of cases. However, following points might be reiterated in summary form:

a. Remember that there are various etiologic agents as those named above i. e. fungi, et cetera, which cause a type of pathology simulating clinically pulmonary tuberculosis. This type of pathology is relatively indolent, does not cause typical localization and encapsulation of abscess in the lung as does the ordinary pyogenic microorganism.

b. Two definite general steps must be taken after one recognizes this type of pathology as contrasted to that of the ordinary pyogenic inflammation of lung:

(1) Carry out all studies necessary to rule out pulmonary tuberculosis.

(2) Then make every possible effort to determine the etiologic agent specifically. For example if actinomycosis may be identified this disorder now is usually amenable to medical therapy; or if tularemia should be the agent, streptomycin will usually cure.

(3) In event one after careful study in this type of pathology has not been able to determine the etiologic agent as one amenable to specific medical therapy, and if the disease is



progressing—then one has no other alternative except to perform surgical removal of the involved areas of lung (assuming that general indications of course are met).

In passing we mention that in some quarters lobectomy and pneumonectomy is being performed for pulmonary tuberculosis. We cannot discuss this in detail here. Empyema which may follow is a very grave problem. We have not stalized our concepts completely as to when lobectomy or pneumonectomy for pulmonary tuberculosis is justified.

### Conclusions

In general, non-traumatic disorders of the lung which may require surgical resection, and indications for surgical resection in treatment of such disorders are as follows:

a. Tumors of lung.

- (1) Malignant
- (2) Benign

The malignant tumors should always be treated by pneumonectomy (rarely indeed, lobectomy) if diagnosis is made sufficiently early. Early diagnosis, the primary responsibility of the family physician, is the keynote to higher incidence of cure of the malignant tumor.

The benign tumors are usually treated by lobectomy or pneumonectomy since it is only rarely that the bronchocopist is able to remove all of such a tumor endoscopically.

b. Cysts of lung.

True cysts of lung, unless of multiple bilateral type, too extensive for surgical extirpation, should in general be removed surgically. Statistics show that re-occurring pneumonitis, abscess within the cyst, "malignant degeneration," will usually not permit patients suffering from pulmonary cysts to live past middle age unless surgical extirpation is carried out. Surgical mortality in properly selected cases should be not more than one to five per cent.

c. Bronchiectasis.

No known medical therapy will cure the fundamental anatomic pathology of true bronchiectasis.

In general the following broad working-rules may be followed in treatment of bronchiectasis:

(1) Definite demonstrable and symptomatic bronchiectasis in children is a definite indication for surgical removal of the disease areas if general contraindications do not exist. Children and young adults are good operative risks for the operative procedures in this general group, despite all conservative measures.

Children, symptomatic from this disorder, will rarely live a satisfactory existence or attain more than adulthood or at most middle-age without surgical therapy.

(2) The middle-aged with minimal bronchiectasis should be treated conservatively if the disease can be held in abeyance by such treatment. Middle-aged adults with a troublesome, symptomatic bronchiectasis should be seriously considered as candidates for surgical therapy. Careful evaluation of the patient as a surgical risk balanced against the progression factor of the disease in the individual patient, will determine whether surgery should be performed.

(3) People of old age should by all means be treated conservatively if possible.

d. Certain infectious disorders of lung.

(1) The type of pulmonary abscesses with which we have long been familiar are caused by such pyogenic microorganisms as pneumococci, streptococci, and staphylococci. Pathology created in this type of abscess usually localizes; and is usually amenable to surgical drainage.

(2) Another important type of pulmonary pathology which may become surgical is caused by fungi, virus agents, possibly rickettsial infections, possibly tularemia, and possibly other agents of which we have more to learn. This type of pathology often simulates clinically that of pulmonary tuberculosis; and occasionally it is necessary to remove part or all of a lung to cure a patient of such pathology. One however should make every possible effort to determine the exact type of microorganism causing this type of pathology in hopes that such microorganism as that causing actinomycosis and tularemia may be amenable to specific antibiotic therapy. Failing in this, ruling out pulmonary tuberculosis other etiologic agents as tumors, cysts, or pyogenic inflammations of lung which later are usually amenable to surgical drainage, one may have no other alternative except to carry out surgical resection if the disease is progressive. In the latter instance one should not procrastinate unduly before performing surgery because the patient may become markedly debilitated and a poor instead of a good, surgical risk.

(Pulmonary resection for tuberculosis is sometimes performed. There is a legitimate place for such operation. Further evaluation is necessary, however, before one would be justified in attempting to formulate briefly, indications for the procedure).



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## PRACTICAL CONSIDERATIONS IN THE DIAGNOSIS AND TREATMENT OF NEUROSYPHILIS\*

RALPH W. GROVER, M. D.; ELLIS P. COPE, M. D.,  
and GEORGE S. BOZALIS, M. D.

Little Rock

We are not interested in symptoms. When a patient develops general paresis, discovery of the syphilitic process is not a diagnostic triumph; it is too late.

We must diagnose neurosyphilis before it produces any symptoms. We must control the infection before it harms the patient. This article deals with its early diagnosis and practical clinical management.

### The Diagnosis of Neurosyphilis<sup>1</sup>

General paresis is not unpredictable. It is the final expression of an infection which has been going on for years. It can be detected in the spinal fluid years before the symptoms appear. The same is true for the other forms of late, symptomatic neurosyphilis, such as tabes dorsalis and meningo-vascular syphilis.

Neurosyphilis begins in the primary stage of syphilis and continuously attacks the central nervous system during the following years. In the first year or two the involvement is minimal and the spinal fluid changes are minimal. As early as the secondary stage, changes in the cell count and protein alone may indicate infection; but it may take a year or two for significant changes to appear. As the years go by and the invasion is more severe, there are more characteristic alterations in the spinal fluid Wassermann reaction and colloidal gold curve. Nervous system symptoms may appear at any time; but they are not reliable and usually appear too late to prevent irremediable damage. Blood serological tests are not reliable. In our experience, over half of the cases of general paresis have shown a negative blood at onset of psychosis.

Spinal fluid examination, therefore, is the only proper basis for the diagnosis of neurosyphilis. The time for diagnostic tap is during the asymptomatic phase of the infection. Two routine taps, six months and three years after the primary, are generally advised and will suffice

for practical purposes without putting too much strain on the physician-patient relationship. It is believed that a negative spinal tap on both of these occasions is a virtual guarantee against the development of late neurosyphilis. When these taps show involvement, however, intensified treatment and prolonged follow-up with repeated examinations of the spinal fluid are imperative.

Untold numbers of people are now suffering from silent neurosyphilis. Many of them had primary or secondary syphilis during the war years. They were treated with penicillin of low potency. Much of our penicillin produced during the war contained considerable percentage of penicillin K,<sup>2</sup> the least effective of the penicillin fractions. Experience has proven those patients have been inadequately treated and in many instances have not been followed. Many were treated for gonorrhea and the associated syphilitic infection was missed. Many others have been treated—without spinal fluid examination—because of an incidental finding of a positive blood. All of them mistakenly feel safe because their blood is negative and they have no symptoms.

If we are to prevent a wave of paresis 10 to 15 years from now, we must examine the spinal fluid in every such case as soon as possible. It is false doctrine to wait for symptoms to arouse our suspicions. Only by spinal fluid examination of every patient with a history of any venereal disease may we anticipate and prevent symptomatic neurosyphilis.

### Current Treatment of Neurosyphilis

Penicillin and malaria are the basis of our present treatment of neurosyphilis. Penicillin alone is used for early neurosyphilis; the inter stages are treated with malaria and penicillin together. The Veterans Administration has largely discarded the arsenicals.<sup>3</sup>

A course of penicillin for any phase of neurosyphilis is nine million units given intramuscularly in 50,000-unit doses every three hours for 22½ days. When there is any suspicion of cardiovascular involvement, or where this possibility is not definitely ruled out, small initial doses prevent untoward reaction.

In the administration of malaria, we emphasize the proper selection of patients and especially close supervision during paroxysms. We have had no mortality and no complications in the 30 cases treated under these principles since reinstituting malaria therapy at this hospital six months ago.

Initial screening of candidates for malaria by thorough physical and laboratory examinations is

\* From the Medical Service, Veterans Administration Hospital, North Little Rock, Arkansas.

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essential. Urinalysis, complete blood count, chest x-ray, blood non-protein nitrogen and an electrocardiogram are routine. We use more exhaustive laboratory procedures and specialist consultation freely in the evaluation of contraindications.

There are few specific contraindications to malaria therapy. Hemiplegia without marked hypertension or renal changes, is no contraindication. Malaria does not necessarily reactivate arrested or quiescent tuberculosis. Patients, however, who show marked debility, extreme hypertension with renal insufficiency, or advanced liver damage, will not survive malaria.

It is believed that 8-10 paroxysms of malaria, together with penicillin, are adequate.<sup>4</sup> We inoculate every white patient with tertian malaria initially. If the infection does not take within 3-4 weeks, or if an abortive course is run, we give a course of chloroquine and re-inoculate with quartan malaria after two weeks. Quartan malaria is the infection of choice for treatment of negro patients, because of their frequent immunity to the tertian form. 5-10 cc. of infected blood intravenously, directly from a suitable donor, or citrated if the blood must be imported, will usually produce a response after 3-15 days with tertian malaria. Quartan malaria has a longer incubation period, and may take one or two months to produce a reaction.

We emphasize the close supervision of patient during the course of the paroxysms, because we feel that it contributes greatly to the safety of the procedure. Specially trained personnel are in 24-hour attendance. They check temperature, pulse, respirations and blood pressure as often as every 15 minutes during the height of a paroxysm so that the fever can be accurately controlled and imminent complications anticipated. They notify the physician in charge if temperature reaches 106° F., pulse rate exceeds 140 per min., or systolic pressure drops below 90 mm hg.

Attention is directed to an adequate fluid intake and to the administration of general supportive measures. Nausea, vomiting and sodium chloride loss occur with paroxysms. Maintenance of fluid balance depends on the enthusiasm of the nursing staff and their ability to encourage seriously ill patients in an adequate caloric fluid intake between paroxysms.

Further, the red blood cell count and hemoglobin, blood non-protein nitrogen, and urine are routinely determined twice weekly. Such attention, we feel, distinctly increases the margin of safety.

<sup>4</sup> 5,000 units every three hours for two days, followed by larger doses.

The paroxysms are controlled by chloroquine and thiobismol. Thiobismol (0.2 Gm) will temporarily interrupt chilling and, when the chills have previously been daily, will tend to establish the more usual tertian or quartan pattern of chills every two or three days respectively. Chloroquine will terminate the infection. We use an 0.5 Gm. initial dose, followed by two doses of 0.25 Gm. each, at eight-hour intervals.

### Case Report

A 34-year-old white male veteran recently came to the hospital with an acute psychosis of four days' duration.

He had had primary syphilis six years previously and had received 20 arm and hip injections. There had been no spinal fluid examination. He had no further treatment until one year before admission when routine blood tests showed that both he and his wife had syphilis. They reported to a state board of health clinic where both were diagnosed "latent" syphilis, and both were given 10 injections of bismuth and mapharsen. Spinal tap was neither done nor suggested.

Four days before admission the patient suddenly became psychotic, with grandiose delusions, hyperactivity and bizarre behavior. Spinal tap showed Wassermann positive in all dilutions, negative colloidal gold curve, normal cell count and increased protein; blood Wassermann was negative; Kahn was strongly positive.

Because of his poor physical condition and the severity of his symptoms on admission, penicillin alone appeared to be the initial treatment of choice. During the first two weeks of this treatment he showed marked mental and physical improvement. Subsequently he received a course of 10 paroxysms of malaria (90 hours of fever over 101°) and penicillin together. On discharge, three months after admission, he was asymptomatic.

Because of the short interval between chancre and psychosis, the sudden onset, the spinal fluid findings, and rapid response to treatment, the case was diagnosed as meningo-vascular neurosyphilis. It is felt that he has an excellent chance for recovery. His wife, who also had a negative blood, readily agreed to have a spinal tap.

**Comment:** This case of neurosyphilis could have been prevented. It is typical of many others. The patient thought that he had received adequate treatment twice; but on both occasions spinal fluid examination was ignored. He should have had spinal fluid follow-up at the time of the initial infection. The diagnosis of latent syphilis should not have been made without a spinal tap.



We feel that a surgeon who leaves a sponge in a belly is far less negligent than a physician who fails to do a spinal tap in a case of syphilis.

### Summary

The diagnosis and treatment of neurosyphilis are discussed.

Spinal fluid examination must be done on every case with a history of venereal disease and especially on all cases who received inadequate penicillin therapy during the war years.

Because of close supervision of patients being treated with malaria, no mortality has been experienced at this institution to date and morbidity has been reduced to a minimum.

### Bibliography

<sup>1</sup> See the excellent discussion by Merritt, H. H., et al, *Neurosyphilis*, Oxford University Press, New York: 1946, pp. 7-9. Here extensively reviewed by Stokes, J. H., et al, in *Modern Clinical Syphilology*, Philadelphia: 1944, pp. 607 ff, and pp. 970 ff.

<sup>2</sup> Romansky, H. J., *The Current Status of Penicillin Therapy*, Veterans Administration Technical Bulletin 10-25, March 28, 1947; Washington, D. C.

<sup>3</sup> Loifer, W. A., *The Medical Management of Neurosyphilis*, Veterans Administration Technical Bulletin 10-26, March 27, 1947; Washington, D. C.

## CORRESPONDENCE

To the Editor:

This summer has been too hot for me, and from what I have seen I think Fort Smith has been about as hot if not hotter. Where did you go to cool off? I ain't been no where no time any time, so I am going now.

Please change my address to: C. McA. Wassell, R-Admiral (MC) USNR, ret., Shingle Memorial Hospital, Hoolehua, Molokai, T. H.

Since my chickens have all feathered and now scratching for themselves, I see no reason why I should not see something of the Grass Skirt Country, having seen Java. My daughter is married and living in Durham, Conn. John, my big boy, has finished at the Baptist and has opened his office at the old Gann Building on East 6th St. My youngest, James, is a midshipman at Annapolis, so there you are in a nutshell.

Please see that my address is changed so that I do not get into the same trouble as one of my good friends and be expelled. I had rather pay the said two dollars and let the boys have a good time with it.

If you are ever over my way look me up and we will be glad to see you and show you the sights. King said he might make it some day. Best regards.

"Doc" Wassell.

## ORGANIC CAUSES OF VOMITING DURING THE FIRST SIX MONTHS OF LIFE\*

F. E. SHEARER, M. D.  
Fort Smith

One of the problems that confronts all physicians who deal with children, especially during the first six months of life, is vomiting. I am going to discuss some of the organic causes of vomiting during this age period which will include congenital anomalies, birth injuries, infections, pyloric stenosis, malrotation of the bowel, hernias, and intussusception. Necessarily excluded by definition are the functional states such as emotional upsets, and incorrect feedings.

### Congenital Anomalies

In discussing these organic causes of vomiting, we will first consider congenital anomalies. Congenital anomalies are usually found early in life, especially if they are severe. Those always manifesting themselves early are some of the deformities of the esophagus, atresia of the bowel at various levels, and strictures which cause complete or partial obstruction. One of the first symptoms usually is vomiting, especially if the anomaly is high in the bowel. Some of these anomalies occur as strictures in the duodenum and the first portion of the jejunum. This will give typical symptoms of a high obstruction, which includes early vomiting, constipation, or, if it is a complete obstruction, the character of the stools will contain only mucous, debris and no bile pigment. This point is emphasized because this complete obstruction developed before birth and obviously no food material could be present. The vomitus will be bile stained and the vomiting projectile in type. If it were not for the bile stained vomitus, there would be some question as to whether or not a pyloric stenosis was present, since in the latter case the obstruction is above the level at which the bile enters the intestinal tract. Without going into further detail regarding symptomatology, we may say that at whatever point the anomaly is causing the obstruction the symptoms, signs and physical findings will be the same as those in an adult. If the obstruction is relatively low, vomiting will occur late, the abdomen will be quite distended, and the x-ray findings will be that of a small bowel or colon obstruction. A goodly number of these cases may be due to an imperforate anus.

\* Read before Seventy-first Annual Session, Arkansas Medical Society, Little Rock, April 17, 1947.



This condition deserves comment only in passing, however, because it is obvious if adequate examination is made at birth or if no defecation occurs.

### Increased Intracranial Pressure

The most usual cause of increased intracranial pressure or brain irritation during the first few days of life is birth injury. These are injuries due to malpresentation before delivery and to hard labor. The baby may be slow about breathing after delivery, it may have a kind of a grunting respiration which is rather irregular, and may have cyanotic spells. Within a day or so the baby usually has vomiting with generalized convulsions or localized twitchings, and unexplained fever. If we can rule out an atelectasis, a collapsed lung, or something of that nature, we can usually make a diagnosis of intracranial pathology. This is frequently mistaken for a congenital heart lesion or some other abnormality. The cause of the fever is usually assumed to be due to infection, but during the first few days of life a febrile reaction is commonly due to birth injuries, especially if one can rule out dehydration fever. If these babies are followed, if the hemorrhage is found to be extensive, they will develop into some type of spastic deformity with typical signs and symptoms. Occasionally there will be a congenital hydrocephalus.

### Infections

Infections are probably the most common cause of vomiting during the first few months of life. Vomiting is usually the first symptom, then fever, loss of appetite, and other clinical manifestations, such as diarrhea, or ear aches. Usually it is no trouble to distinguish infections which cause vomiting from other causes. Upper respiratory infection is the most common infection, and then possibly infectious diarrhea.

### Pyloric Stenosis

Pyloric stenosis is a definite entity and quite dramatic in some respects. It has its onset usually at the age of two weeks. Eighty-five to 90 per cent of the cases occur in males. The vomiting at the start is not a prominent symptom but it gradually becomes progressively more intense. The vomiting becomes characteristically projectile in type. The baby will act as if he is hungry, and after taking a bottle of milk will vomit in the manner described above. If the abdomen is closely inspected, peristaltic waves will be seen to pass from left to right over the stomach, as seen through the abdominal wall, and disappear beneath the right costal margin. Weight loss is continuous, and if there is a

definite pyloric stenosis, it will be unremitting. The vomitus will not be bile-stained. Constipation will get progressively more obstinate until there are practically no stools. Unless dehydration or a complicating infection be present, there will be no fever. X-ray examination will show only that the barium does not pass the pylorus. According to most authorities, one should be able to palpate a mass in the right upper quadrant in the majority of cases, but in my experience I have been able to find a palpable mass in but a few cases. Insofar as treatment is concerned, early operation is probably the therapy of choice. Recovery is usually prompt and complete. Benign pylorospasm on the other hand usually responds to the anti-spasmodics.

### Malrotation of the Bowel

Technically speaking, malrotation of the bowel should properly be considered under congenital anomalies, but I choose to take it up as a separate heading because I wish to place emphasis on it. This condition is supposed to be rather rare, but during the past year we have seen three definite cases which have come to surgery and have recovered. For this reason I am laying stress on this particular condition. The onset of vomiting usually dates from birth. Here vomiting is always bile-stained, but at times is projectile in character because of the high level of obstruction which is usually at the third portion of the duodenum. The cases that we have observed have not been complete obstructions, but more or less partial obstruction which varied in intensity from almost complete obstruction to no obstruction. The vomiting for this reason is at times intermittent. The degree of constipation, of course, varies, depending upon the status of obstruction. Visible peristaltic waves are occasionally present but not always. X-ray examination will show filling of the stomach, duodenum, and usually the upper part of the jejunum where obstruction begins. The duodenum will usually be markedly dilated and after a time some barium will be seen to pass through. The remainder of the intestinal tract usually will be found normal unless the barium should get into the cecum so that it can be identified; then in that case it will be found to be lying in the left upper abdominal quadrant. These babies, I might say, are usually treated on the basis of intolerance to formula, and as a result thereof will have been subjected to varied feedings. The common explanation to the patient under such circumstances has been that none of the milk will agree with the baby.

A typical case history is that of a four-day-old



baby that was first seen in the hospital because of vomiting, constipation, and no other symptoms. The delivery had been uneventful and the baby had been normal, apparently, except for the vomiting. Due to the dehydration the baby was losing weight rapidly, so parenteral fluids were given but the baby continued to vomit. The vomitus was bile-stained; consequently, an X-ray study was done. This showed filling of the stomach and the first two segments of the duodenum. At operation, all that was found was a malrotation of the bowel with the cecum lying in the left upper quadrant. This portion of the colon was placed in the right lower quadrant, and the bowels filled immediately, showing that the obstruction had been relieved. This baby recovered satisfactorily.

### Hernias

All of us are familiar with hernias, especially the inguinal and umbilical variety. There is one unusual type of umbilical hernia which at times will cause concern. This is the one which at birth is characterized by the presence of a loop of bowel extending out into the umbilical cord. If extreme caution is not taken, some of these cords will be tied at a point to include the loop of bowel, producing strangulation. When this happens usually the baby dies before the condition is recognized. The other type that should be emphasized is the inguinal hernia, especially in girl babies, which at times will come down and be incarcerated. These require emergency surgery and the babies usually come in because of vomiting and the other signs of obstruction of the bowel due to strangulation. Internal hernias, of which a diaphragmatic hernia is a type, occasionally cause vomiting and the true condition will not be recognized until an X-ray examination is made. Then only will the true nature of the condition be recognized. There are other rarer types of internal hernias which I am not going to stress now. We might say that hernias usually, if they are causing very much trouble, will cause vomiting, pain, and a protruding mass, but no fever unless complicated. Treatment is usually either surgery or a properly fitted truss.

### Intussusception

Intussusception is a condition in which one part of the bowel telescopes itself into some other part. The commonest mechanism is that of the ileum telescoping itself into the cecum through the ileocecal valves. This is practically always the location of intussusception in babies. This condition is quite dramatic, supposedly very easy to diagnose, but frequently missed until it

is too late for surgery to effect a cure. The onset is usually seen in a normal healthy baby boy who suddenly begins to have severe colicky pains which cause him to cry out, sweat, and soon start vomiting. No fever is present in the absence of complications. He may have one or two normal stools, then he will begin to pass small blood-stained bowel movements of the so-called currant jelly variety. On examination, after the baby has been sedated, a sausage-shaped mass can be felt in the abdomen. If very early, it can be felt in the right lower quadrant, later in the mid-abdomen, and still later over the lower left quadrant. If it has progressed long enough, digital examination will reveal a mass projecting into the rectum with a typical cervix-like configuration of the prolapse. Barium enema at times can be useful in diagnosis, is not dangerous, and can be carried out safely in early cases. Treatment: Usually surgical.

Summary: Whenever we are confronted with vomiting in a baby, there are several things which we should consider, namely, congenital anomalies, birth injuries, infections, pyloric stenosis, malrotation of the bowel, hernias, and intussusception. In the differential diagnosis, we must consider first, age of onset; secondly, presence or absence of febrile reaction; thirdly, type of vomiting and character of vomitus; fourthly, presence or absence of pain. As stated above, I have omitted the formula as an organic cause of vomiting, since I am inclined to believe that more of these vomiting babies have organic causes than most of us suspect, and if the usual types of feeding do not agree with the babies and vomiting persists, I recommend that organic causes be considered and eliminated.





# THE JOURNAL

OF THE

## ARKANSAS MEDICAL SOCIETY

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under direction of the Council

W. R. BROOKSHER, M. D., Editor  
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## EDITORIALS

### VOCATIONAL REHABILITATION AND THE DOCTOR

Physicians have recently received the booklet, "The Doctor and Vocational Rehabilitation," issued by the Office of Vocational Rehabilitation. Without the sincere and earnest cooperation of physicians, successful rehabilitation of civilians under the present statutes is an impossibility. The state-federal vocational rehabilitation program has endeavored to provide itself with competent medical and technical advice. The individual physician must, however, discover eligible persons, conduct the preliminary physical examinations and, in most cases, conduct the physical restoration phases of the effort.

The major objective of the vocational rehabilitation programs is to restore or to improve the working ability of disabled individuals through either vocational rehabilitation, physical restoration or both. The program is assisted with funds from the Federal Office of Vocational Rehabilitation and the State Board of Vocational Education in Arkansas. The director, A. S. Ross, and his entire staff have evidenced a desire to fully cooperate with the members of this Society

in the medical phases of the program.

Provision is made for medical examination, necessary medical and hospital services, necessary prosthetic devices, counseling and guidance, vocational training, placement assistance, follow-up supervision, tools, equipment and even maintenance and transportation during rehabilitation.

All employable persons of working age with substantial job handicaps in the form of physical or mental impairment are eligible for assistance. The eligibility for physical restoration services is based upon economic need and not available through some other agency which is authorized to render the needed service. Training alone is provided without regard to economic need. Physical restoration, medical and surgical care, is provided only when the disability is static and is amenable to treatment within a reasonable time and then only when the physical restoration service will enable the disabled person to be employed or to be more advantageously employed.

The number of persons rehabilitated in Arkansas has increased with the growth of the program. For the past three years the number rehabilitated, employed in suitable vocations and making a living were: in 1945, 525; in 1946, 541, and in 1947, 567. These figures are eloquent in appraisal of the ultimate value of the program; over 1,600 disabled persons restored as wage-earners with the stability that comes from self-sufficient citizens rather than with the misery of dependence and physical distress.

The medical profession becomes an outstanding factor in the growth of this program. We must lend it our full assistance, not as charity but as an effort to assist the disabled to assume his full rights as a self-supporting citizen.

### REGIONAL CONFERENCE ON MEDICAL SERVICE

The Council on Medical Service, American Medical Association, has announced the program for a Regional Conference to be held in New Orleans October 23rd and 24th. These conferences are planned in the effort to bring to the medical profession discussions on matters of particular interest and have been held in various sections of the country in the past two years. This regional conference will be a two-day affair with round-table discussions on four rather broad subjects. A moderator and several panel discussants will serve each round-table. Chas. R. Henry, Little Rock, will serve as moderator for the round-table discussion on Pre-



payment Medical and Surgical Care Plan Problems. Other problems to be discussed are "Industrial Health Problems of the South" and "Rural Health Problems." The discussion evoked in these meetings is of the greatest interest to physicians in Arkansas and it is hoped that members of the Committees on Medical Service, Industrial Health and Rural Medical Care especially, will arrange to attend these sessions. The full program may be obtained from the Council on Medical Service, American Medical Association, Chicago.

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## EDITORIAL COMMENT

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### AMENDMENTS TO CONSTITUTION AND BY-LAWS

The following proposed amendments to the constitution and by-laws were presented to the House of Delegates at the 1947 annual session and are published in The Journal for the information of the members and in accordance with prescribed practice. Final action will be taken by the House of Delegates at the 1948 annual session.

#### **Constitutional Amendment:**

Article XI—In the second sentence, to substitute the figures "\$25.00" for "\$5.00."

#### **Amendment to the By-Laws:**

Chapter IV, Section 2—To add an additional sentence reading:

"The Section on Ophthalmology and Otolaryngology shall be represented in the House of Delegates by one delegate."

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## REPORTING OCCUPATIONAL DISEASES

The Arkansas State Board of Health at its regular meeting July 1, 1947, adopted resolutions making the reporting of occupational diseases mandatory. A copy of the regulations and instructions have been mailed to each physician in the state. The importance of accurate statistics on occupational diseases is fully appreciated by every practicing physician and full cooperation will be of greatest value in the control of these industrial hazards in the state.

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## RANDOM THOUGHTS OF THE SECRETARY

August 18th. Tonight Curtis speaks with interest and enthusiasm to the hospital staff on survey films in a general hospital, the next step in the control of tuberculosis.

August 25th. Thanks to Jim Kolb we enjoy

Johnson County peaches which improve in quality each season.

August 27th. To Clarksville tonight for the fights, finding that Johnson County is zealous of its own but more astounded to know that all the money we paid for steaks at the restaurant goes to Siegel.

August 28th. Now to find those realtors who laughed when the medical profession was "trust-busted." Who is next as we return to the political smearing of business and free enterprise?

September 3rd. Goldstein buys a house today, giving the novel excuse that he "could not tell when he might have to sell his present house," but the unofficial spokesmen say it was bought for joint establishment of a tumor clinic with Brooksher.

September 7th. Tonight the fraternity elders banquet the active chapter and the rushees, the younger group being indulgent and complimentary, permitting the older boys to go home satisfied with their efforts but knowing full well that they could never again enter into the things that are of youth.

September 9th. With Stanley Gates to the Tenth Councilor District meeting at Fayetteville, arriving late for the luncheon and so eating at the Mountain Inn cafeteria, further indication that Fayetteville grows. Then to the Veterans Hospital where the ASTP group do a fine job with the program.

September 11th. With Jones and Amis tonight to meet with the Pope-Yell County Society, finding a considerable change in personnel although H. L. Montgomery maintains his perfect attendance record, but no departure from the enthusiasm which is typical of this group. Max Mobley discusses EENT emergencies but we are still not encouraged over our ability to do an emergency tracheotomy as we thought was imminent at last month's Clarksville fights. Homeward with a glorious, refreshing rain all the way, Nature's gracious benediction to a torrid summer.

September 13th. Back to the Dining Car where steaks maintain that establishment's rating but observing, with fellow diners Amis and Chamberlain, that our advice on the proper preparation of potatoes in the French manner has been ignored.

September 14th. Tonight to "open house" at Pearl Waddell's new office building, an establishment with all the accessories of pediatric care, apparently even a cow.



## PROCEEDINGS OF SOCIETIES

The Pope-Yell County Medical Society met in dinner session at St. Mary's Hospital, Russellville, September 11th, with Max Mobley presenting "Emergencies in Eye, Ear, Nose and Throat Practice."

W. O. Young, Secretary

The Tenth Councilor District Medical Society met in luncheon meeting at the Mountain Inn, Fayetteville, September 9th. Officers elected were Loyce Hathcock, Fayetteville, president; Art B. Martin, Ft. Smith, vice-president, and A. S. Koenig, Ft. Smith, secretary-treasurer. The Society will next meet in Ft. Smith during September, 1948. The following scientific program was presented at the Veterans Hospital: Welcome Address, F. N. Gordon; "Tularemia: Diagnosis and Treatment," Lt. Roger M. Bost; "Pathogenesis and Treatment of Urinary Bladder Calculi," Edward Gartman; The Arkansas Health Plan, Chas. R. Henry, Little Rock; "Brucellosis: Incidence and Recognition," Lt. Isidore Cohn; "The Treatment of Fractures of the Elbow," S. R. Hosmer, and "Pericarditis with Effusion: Discussion of Treatment and Case Presentation," Lt. S. C. Percefull.

Friedman Sisco, Secretary.

Dr. and Mrs. R. B. Robins of Camden entertained the members of the Ouachita County Medical Society at their home on Mustin Lake Thursday night, September 4. After a turkey dinner the following motion pictures were shown:

1. Vagotomy
2. Sutures Since Lister
3. Folic Acid in Anemia.

Plans were perfected for the Fifth District Medical Society meeting in Camden October 30. Dr. Morris Fishbein, editor of the Journal of the American Medical Association, Chicago, will be the speaker. The meeting will be a public relations meeting and will be held at the Camden Municipal Auditorium. Governor Ben Laney will also participate in the program.

The Benton County Medical Society met in dinner session at the Harris Hotel, Rogers, September 11th for a discussion of case reports.

G. C. DeBolt, Secretary.

## PERSONALS AND NEWS ITEMS

The following have been elected post surgeons of the American Legion: J. O. Boydstone, Hot

Springs National Park; W. A. Regnier, Hamburg; Milton John, Stuttgart; V. E. Lyons, North Little Rock; W. L. Newton, Smackover; T. N. Rodman, Leachville, and W. L. Boswell, Clarendon.

Dr. and Mrs. Virgil Payne, Pine Bluff, spent a recent vacation in Canada.

H. B. Thompson, Fort Smith, spent a recent vacation in Minnesota.

A. S. Koenig, Fort Smith, spent a recent vacation in New York City.

The University of Arkansas School of Medicine Alumni Association is endeavoring to bring its roster to date. It will be appreciated if all members of the Association will write Dr. Edwin F. Gray, president, 601 Donaghey Building, Little Rock, giving full name, present address and year of graduation.

J. M. Kolb, Clarksville, spent a recent vacation in Texas.

The following have been elected post surgeons of the American Legion: Merl Crow, Warren; Wm. M. Parker, De Valls Bluff; Rex Williams, Siloam Springs; W. R. Felts, Judsonia, and G. D. Murphy, Jr., El Dorado.

The Arkansas Tuberculosis Association has elected the following: Brian E. Barlow, Dermott, president; Jerome S. Levy, Little Rock, vice-president, and A. C. Shipp, Little Rock, chairman of the Executive Committee.

The following attended the sessions of the American Congress of Obstetricians and Gynecologists in St. Louis during September: W. F. Adams, J. B. Stewart, Fort Smith; R. L. Turnbow and C. P. Wickard, Little Rock.

Fred Hames, Pine Bluff, attended the International Cancer Research Congress in St. Louis during September.

Chas. T. Chamberlain, Ft. Smith, spent a recent vacation in Mississippi.

H. Elvin Shuffield is now associated with his father, Jos. F. Shuffield in the practice of orthopedic and traumatic surgery, 1008 Donaghey Building, Little Rock.

Marion S. Craig, Jr., who is serving a three-year residency in proctology at the Mayo Clinic



recently visited his father, Dr. M. S. Craig, in Batesville. Dr. Craig, Jr., will complete his residency in January, 1948.

Euclid M. Smith, Hot Springs National Park, attended the meetings of the American Congress of Physical Medicine in Minneapolis during September.

J. P. Hiller, Pollard was honored on his 71st birthday by a community celebration. Over 125 of the 3,000 babies he has delivered were present. Gifts included a new automobile and the furnishing of a room in the new Piggott Hospital.

M. B. Hoge, Ft. Smith, spent a recent vacation in Virginia.

S. W. Hawkins, Ft. Smith, spent a recent vacation in Colorado.

B. P. Briggs, Little Rock, has been appointed representative from the Arkansas Medical Society to the State Council on Children and Youth.

Dr. and Mrs. Roy Millard, Russellville, spent a recent vacation in Colorado and Wyoming.

J. M. Kolb has been reelected business manager of the Presbyterian Church at Clarksville.

BORN—To Dr. and Mrs. Jerome S. Levy, Little Rock, a daughter, Carol Lee, June 28th.

J. O. Boydstone, Hot Springs National Park, has been elected third vice-commander, American Veterans of World War II.

## OBITUARY

WILLIAM M. WEAR, aged 80, died at Paris August 30th. Born at Berryville, Tennessee, he came to Paris with his parents at the age of four and attended Paris Academy and George Peabody College. For several years he taught school, having been superintendent at Paris, Mena and Danville. He received his medical degree from the University of Arkansas School of Medicine in 1911 and had practiced at Paris since graduation. Surviving relatives are his wife, a son and a daughter.

## THE ARKANSAS HEALTH PLAN

CHAS. R. HENRY, M. D.†  
Little Rock

(In this issue The Journal answers a number of questions about the operation of the new Arkansas Health Plan as it affects doctors, hospitals and patients. Further questions undoubtedly will occur to many members of the Arkansas Medical Society as they read the article. The Journal suggests that such questions be directed to the Editor. Both the questions and the answers to them will be published in subsequent issues.)

How will the new Arkansas Health Plan affect the average doctor's practice?

What fees are payable under the plan?

How is payment made to the doctor?

What can the individual doctor do to help the new program?

With the Arkansas Health Plan now in actual operation, the answers to questions such as these become currently significant to doctors of medicine throughout the state. Increasingly as the plan grows, its effects on the economics of medical practice will become self-evident, and these effects will include many advantages to both doctors and their patients. Fortunately, accurate predictions can be made from the experience of the medical and hospital care plans in many other states which were investigated by the joint committee during the period of nearly three years devoted to development of the Arkansas plan.

As pointed out in previous articles, for example, the plan will offer pre-payment for both hospital and surgical care. Most subscribers are expected to enroll for the full program, although some may enroll for hospital care only.

Even those patients who carry only hospital care protection, however, will be facilitating the medical handling of their cases. Since they will, in effect, have "paid in advance" for hospitalization, their ability to afford hospital care need no longer concern the physician in deciding whether or not they should be admitted to the hospital. The decision can be based solely on the medical requirements of the case.

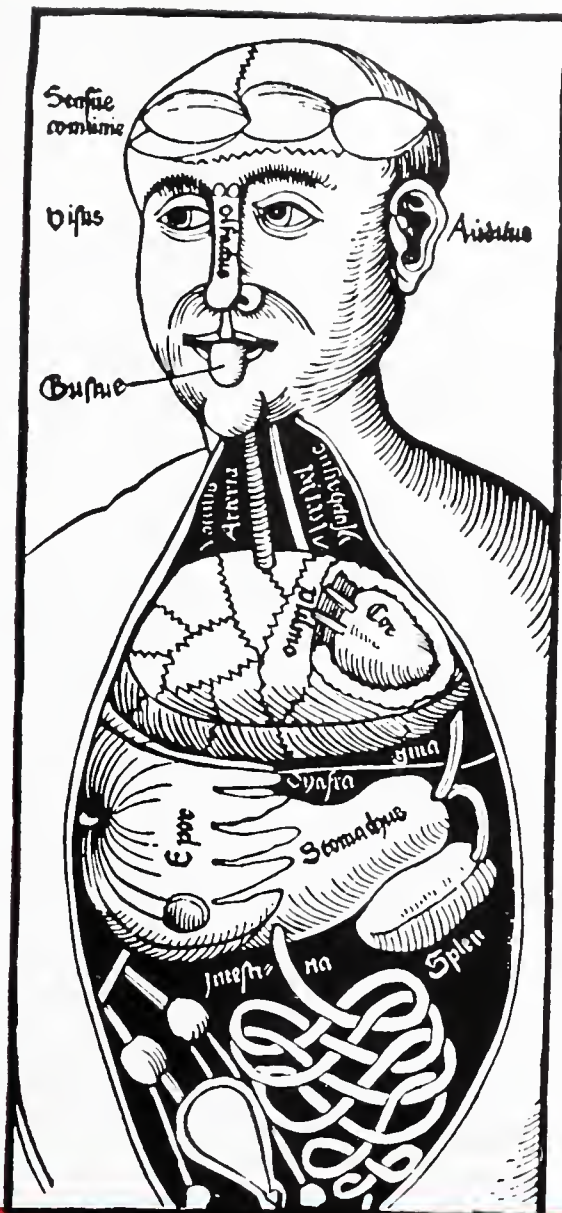
Unlike many other hospital care programs, the Arkansas plan does not restrict its members to the use of certain hospitals either in Arkansas or elsewhere. This complete freedom of choice is made possible by the fact that the plan is underwritten by a national organization, the John Marshall Insurance Company of Chicago.

Of the two hospital plans available to mem-

† Chairman, Committee on Medical Service and Public Relations.



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bers—one providing for payment of the complete hospital bill for up to 120 days of semi-private care, and the other allowing \$3 daily plus \$30 for extras—it is anticipated that the great majority of subscribers will enroll for the comprehensive service.

The surgical plan, which will be offered in combination with either hospital plan, provides for payment of the doctor's fees up to the amounts which are stated in a Schedule of Surgical Operations and Benefits or are otherwise determined by the insurance company. The variety of surgical procedures and combinations of procedures makes it impossible to provide a complete list of the fees payable, but it is suggested that doctors submit their statements to the insurance company as explained below. In turn, the company will advise them of the fee payable in each instance and will forward its check.

The plan does not, in other words, attempt to set the doctor's fee. The surgical schedule it has adopted is the broadest \$150 schedule known to exist. Where the doctor's fee exceeds the amount payable, the balance can be billed directly to the patient by the doctor.

The key to the services to which each plan member will be entitled is contained in his identification card, which is issued at the time of enrollment by the John Marshall Insurance Company. This card contains on its reverse side a "Message to Doctors" explaining the simple coding of the card face. By consulting this, the doctor can quickly determine whether or not the patient has enrolled for surgical services as well as for hospital service.

The surgical benefits are payable whether the patient receives care in his home, in the doctor's office, or in the hospital. All types of surgical procedures are covered except cosmetic surgery that is not necessary to correct traumatic conditions or congenital injuries, and dental surgery.

The only waiting period required under the plan is for hospital or physician's care in obstetrical cases. The nine-month waiting period in such cases is waived, however, when 75 per cent of the enrolling members of an original group subscribe to the plan, or when there are complications resulting in the termination of pregnancy but not in childbirth.

Doctors providing surgical services to surgical plan members are urged to send their statements directly to the John Marshall Insurance Company at the Chicago address given on the identification card.

To assist the doctor or his secretary, the company supplies simplified one-page statement forms which require only a few entries. These forms will be supplied by the insurance company on request, or, if he prefers, the doctor may submit his regular statement. It is essential, however, that the company also have certain supporting information to help identify the subscriber from among the dozens who may have the same name, and to determine the amount of the fee payable. This information includes:

The subscriber's or "certificate-holder's" name, the patient's name, the certificate form number, the subscribers group number, the subscriber's identification number, a brief description of the surgical services rendered, the location at which the service was rendered, and the date of service.

These items, most of which can be answered from the data on the identification card, cover all the information that is requested on the insurance company's statement form.

Payment for all services covered by the subscriber's certificate is made directly to the doctor within 72 hours after the insurance company receives a completed statement or form.

The long-range effects of the Arkansas Health Plan will be even more important than the immediate. The plan will influence its subscribers

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to seek medical and hospital care when needed, rather than to delay it, merely by removing worry about the costs of care. Doctors will find that they are called earlier in illness and that their enrolled patients as a whole recover more promptly. In other states, the operation of health care plans actually has reduced the amount of hospital care required by plan members because, although they do go to the hospital for care more frequently, the average length of their stay is markedly reduced.

The problem of payment for medical care is naturally less acute for many patients today than it is during periods of economic depression. Even during a depression, however, the same patients who place the doctor's statement at the bottom of the pile of unpaid bills will faithfully keep up their insurance payments. Maintenance of health insurance protection thus automatically has the effect of bringing the doctor's statement from the bottom of the heap of bills to the top.

The interest of individual doctors in the Arkansas Health Plan inevitably will have a great deal to do with its growth. By mentioning the program to leading employers in his community, by understanding its general operation so that it can be explained to patients, by sending statements of fees directly to the insurance company, and by otherwise helping the plan to fulfill its objective of service to the people of Arkansas, each doctor can help accelerate its development and can simultaneously make a contribution to the welfare of his profession and of his patients.

The merits of the Arkansas Health Plan speak for themselves and will soon be demonstrated in actual practice.

### AUXILIARY NEWS

In the year 1922, during the meeting of the American Medical Association held in St. Louis, Missouri, a representative of the Woman's Auxiliary to the Texas Medical Association was encouraged to present a request to the House of Delegates through a Texas state member of that body, to-wit:

"The Woman's Auxiliary to the State Medical Association of Texas respectfully requests the approval of the American Medical Association of a movement to organize a Woman's Auxiliary to A.M.A., the object of which shall be to extend the aims of the medical profession through the wives of doctors to all women's organizations looking to the advancement of health education, to assist in entertainment of all medical conventions, to promote acquaint-



anceship among doctors' families to the end that closer fellowship may exist."

Unanimous consent was given and on May 26 a meeting was called and 24 doctors' wives, representing nine states, were present and temporary organization was made. On June 12, 1923, a general meeting was held in San Francisco at which 10 states were represented.

The organization was made permanent by the adoption of a constitution and by-laws. Officers were elected and plans made looking to the organization of auxiliaries in all states. In New Orleans, November 4, 1924, during the meeting of the Southern Medical Association, by consent of that body a Woman's Auxiliary to S.M.A. was organized. By invitation from representatives of these two organizations, the president presiding over the 50th meeting of the Arkansas State Medical Society requested that the wives in attendance with their husbands be called together. There were 57 in the group present. This meeting was held in the assembly room of the Capitol Hotel, May 14, 1925.

After inspirational talks made by the president and secretary of the State Medical Society and the dean of the State University School of Medicine, a temporary chairman and secretary were chosen in order that the aims and purposes of a woman's auxiliary could be discussed.

The Committee on Constitution and By-Laws made their report which was accepted without discussion and a new organization was launched for service in the state.

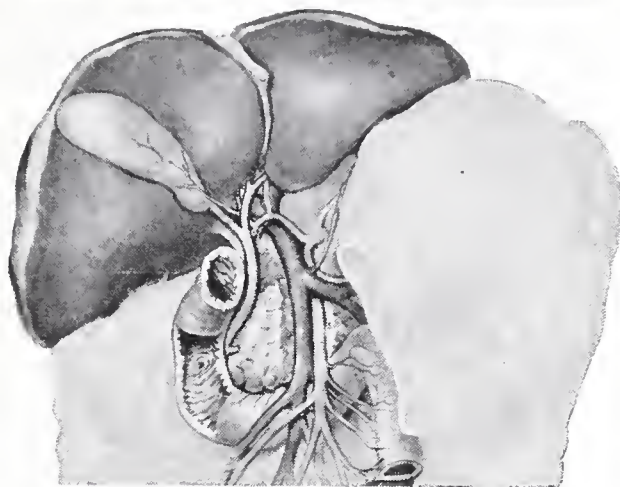
Six county auxiliaries were reported organized, each with a full corps of officers, and were accepted by the State Auxiliary on payment of prescribed dues.

The president of the Texas Auxiliary was an honor guest and presented to the Arkansas Auxiliary a gavel made from wood of a walnut which was grown on the line between the two states.

The wives of two past presidents of the Arkansas State Medical Society were made honorary members for life.

New officers were elected, as has been done at the meetings each year since. As the roster shows, women of outstanding ability have served the organization since its first annual meeting, giving freely of their time and energy, as they have encouraged its members to carry on. The original aims and purposes, or new objectives, are accepted as a service which would reflect credit on the Arkansas State Medical Society, to which we do not forget that we are only an auxiliary.

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### THE PSYCHOLOGICAL MOMENT IN THE TREATMENT OF TUBERCULOSIS \*

By J. D. RILEY, M. D.

State Sanitorium

Constantly growing importance is being attached to preventive medicine. Likewise there is wider recognition of emotional problems in illness. These considerations emphasize that the modern medical man must cherish and play the role which his title of honor—"doctor"—implies is still his. For "doctor" originally meant "teacher."

This is no new responsibility for physicians. It is, however, an aspect of the art which many have been inclined to overlook during a period when astonishing scientific discoveries have dominated the medical scene. The contributions which chemistry, physics and biology have made to medical science are in no way diminished by the admission that these are contributory to medicine as an art, but that they do not comprise the whole of medicine. The physician deals, first and last with something more than a collection of organs in varying degrees of dysfunction. He is concerned with a human being.

This human being who comes with his questions or his needs to the physician requires first of all, a diagnosis—that is a recognition and an evaluation of his physical state. Diagnosis may present no problem if symptoms are clear-cut or altogether absent. At times, however, it can be given only after an exhaustive exploration with the best laboratory and technical tools available. But in this case even as the symptoms are being elicited, the true physician is already probing for the facts and making the observations which will guide him in the next and perhaps the most important portion of his total service to the patient—that of acquainting him with the true state of affairs and preparing him for treatment when necessary. It is, then, that the doctor functions primarily as

a teacher, a friend, and only secondarily as a man of science. It is at this time that he may utilize to advantage the principles and practices of education.

"There is a tide in the affairs of men which taken at the flood leads on . . .," says the poet. "There is also a tide in the educational life of a child or of an adult," says one educator. This is "when one is in a position to learn efficiently and rapidly. Leaders watch for these **teachable moments** and utilize them to their fullest." The teachable moment is more often called the psychological moment, a term full of meaning to any thoughtful person.

The time at which the physician acquaints the patient with his diagnosis, especially when it is that of a chronic disease such as tuberculosis is such a moment. It is then that the fearful patient with every sense quickened, listens with all his being in order that no word of the physician, no implication of his tone or manner will escape notice or be given less than its true importance. It is often, at this time, that the foundation is laid for a successful recovery from tuberculosis. Sometimes, unfortunately, the golden opportunity is wasted, with disastrous and disappointing consequences.

To assemble the facts, to weigh the possibilities, to help the patient face the reality and to be ready with constructive plans, calls for great skill on the part of the physician. He must make sure that the implications of the diagnosis are understood, yet he must be as optimistic as the facts warrant if his patient is to undertake treatment hopefully. He must stress the necessity for a drastic change in the life and plans of the patient, yet never proceed faster than the patient is ready to go along with him in his thinking. If handled hurriedly or casually, the patient may refuse to accept the diagnosis; he may delay or postpone treatment; or he may undertake his cure in so rebellious or apathetic a spirit that he nullifies the best efforts of the hospital and medical staff. The difference between what should happen and what does happen to an individual

\* Read before Seventy-First Annual Session, Arkansas Medical Society, Little Rock, April 19, 1947.



tuberculosis patient is often determined by the attitude and teachings of the physician who first makes the diagnosis. This is the time when treatment really begins. In tuberculosis the sequence of diagnosis, treatment and rehabilitation should always overlap and be woven together as a well-spliced rope, strong enough to haul the patient from danger back to safety.

What is the duty of the physician to the man or woman on whom he makes a diagnosis of pulmonary tuberculosis?

First of all, he should come to a tentative decision after he completes the examination and before he notifies the patient. A diagnosis of tuberculosis does not have a definite meaning. It varies all the way from an arrested case needing supervision but no treatment to the clinically active, open, incurable case. What the physician's duty is depends on his findings in the individual case. If the patient has active tuberculosis, it should be discussed and handled as a communicable disease.

With full consideration for the patient's intelligence, and temperament, without equivocation or mental reservation, the physician should tell the patient, preferably in the presence of a responsible relative, that he has tuberculosis and he should explain the case frankly. He should not overestimate nor underestimate; he should give the patient the facts as he sees them.

It is quite possible, by properly taken stereoscopic pictures, to determine almost exactly how much tuberculosis the patient has. It is quite impossible by X-ray pictures alone to establish the degree of clinical activity, perhaps the most important aspect of the prognosis. The patient should be told that only after the consideration of clinical and laboratory findings, of constitutional symptoms, and of his response to treatment as shown by the X-ray can any estimate of the progressiveness of the disease or the length of time required for treatment be made.

It is not usually possible for the physician who makes the diagnosis to educate the patient in matters of tuberculosis—time will not permit. He should, however, never dismiss the patient without making sure that he has accepted the necessity for treatment. At this point, the physician might well remember that there is a time element in the learning process. It is inevitable that there will be some shock when a patient is told that he has tuberculosis and is in need of hospital treatment. No attempt, therefore, should be made to

hurry practical arrangements until the patient indicates by his questions that he is ready for them. An emotional acceptance of these two basic facts, that he has active tuberculosis and that treatment is essential, is fundamental. Until this acceptance is obtained, progress along other lines should not be attempted.

This may take time, and perhaps the help of the public health nurse and the social worker will be needed before the patient and his family are able to go on with plans for treatment. Perhaps a confirmatory diagnosis by a tuberculosis specialist will be required. But until plans are completed and treatment is initiated the patient is still under the care of the physician who made the diagnosis. The responsibility for sound and careful guidance, for the protection of the family and for interim treatment rests with him.

I do not believe in compulsion. If we could compel every patient to take the cure until his disease was arrested, we could not then compel him to live within his limitations in order to avoid further breakdowns. Patients must want to take the cure. They must be so anxious to get well that they are willing to accept the restrictions and limitations necessary for their recovery.

Once the patient is in the sanatorium, he becomes the responsibility of the sanatorium physician. Immediately upon admission the sanatorium physician should explain to the patient that the treatment of tuberculosis is essentially educational. First, it is necessary for every patient to unlearn false notions about tuberculosis.

Intelligence is the most potent factor that can be directed against any disease. No question asked by an earnest patient is too insignificant for an answer. No fact that will aid him in recovering health should be withheld from him.

The physician who treats tuberculosis naturally becomes his patient's instructor in health problems. He should stress the importance of rest in bringing his disease under control and of practicing sanitary precautions so that he will not menace the health of his relatives, friends and others. He should also explain to the patient that he must learn his limitations and how to live within them, not only in the sanatorium but after he leaves it.

If the patient understands the character of the disease that he is fighting, he will know why it is necessary for him to follow closely a definite program, foregoing seemingly harmless pleasures and avoiding undue activities in the business and



social world. It is all but impossible to secure cooperation unless the patient understands the reason for it. It is an insult to his intelligence to ask him to rest in bed, to give up business and to follow such instructions as are usually given in the treatment of tuberculosis if he has no definite idea why he is doing it. Since there are excellent reasons for each of these steps, they should be fully explained and fully accepted.

An understanding of the tuberculosis hospital will help the private physician in preparing his patient for treatment there. It will also enable him to give more effective counsel when the patient returns from the hospital as a convalescent. The need for periodic check-ups persists in all "cured" cases of tuberculosis even after the initial adjustment to economic independence and normal life has been made.

The patient whose cooperation is enlisted at the time of the diagnosis is apt to become a good patient while in the tuberculosis hospital. Moreover, it is a common observation that such patients not only do better under treatment but are more successful in staying well after they leave the sanatorium.

Spectacular results in reducing the death rate from tuberculosis have been achieved in the past few decades. We are now reaching the point of diminishing returns unless the physician in general practice concerns himself more than ever before in getting under treatment all active cases promptly after they are discovered. To do this he must seize the opportunity which comes to him when he tells the patient of the diagnosis. Here is a teachable moment. The entire future course of his patient's life may be determined in the short course of the half-hour the doctor has at his disposal. Here may be laid the foundation for an interested, intelligent and hopeful approach to the curing of the disease which endangers the patient, his family and the community. On the other hand, here also may be the tide which "omitted, all the voyage . . . is bound in shallows and in miseries." The physician who understands the meaning of teachable moments in tuberculosis will not fail to take advantage of this opportunity which will come but once with every patient. The foundation for successful treatment in tuberculosis is laid when the doctor tells the patient that he has the disease. Psychologically, medically and economically, this may well prove to be the biggest moment in the patient's life.

### Summary

1. In tuberculosis, the physician who makes the diagnosis has a unique opportunity to lay the

foundation for successful treatment of the patient.

2. The time at which a patient is told that he has tuberculosis needing treatment is the psychological or teachable moment for establishing a constructive attitude in the patient toward his disease and the tuberculosis hospital.

3. Such an attitude gives the patient the greatest chance for recovery from tuberculosis and lessens the possibility of recurrence.

4. If the patient is not prepared for treatment at the time of diagnosis, the opportunity for doing so easily is lost.

## CONDYLOMA ACUMINATUM

### Podophyllin in Compound Tincture of Benzoin and Improvement in Technic of Treatment

MARK M. MARKS, M. D.

Kansas City, Missouri

When podophyllin was introduced as an effective and simple method of treating moist warts by Kaplan,<sup>1</sup> mineral oil was the vehicle. Sullivan and King<sup>2</sup> reported their best results with a 25 per cent mixture of the resin in mineral oil. They allowed contact of the medication on the wart for from eight to ten hours, then washed it off to avoid caustic effects. They were aware of the existence of a problem in protecting healthy tissue from chemical injury.

Podophyllin may be dissolved in compound tincture of benzoin in 15 per cent concentration to make a stable solution. When this is applied to the cleansed and dried verrucae, allowing some to seep into the crevices, the surrounding skin is wiped carefully free of any spillage which may have occurred. The gum quickly dries on the lesions. A light powdering with talc controls residual stickiness and prevents maceration by friction of opposite parts. Following such treatment the warts soon become edematous; inflammation persists a few days, to be followed within a week by involution, shrinkage and a falling away of the shrivelled mass with little or no scar.

The advantage of compound tincture of benzoin as the vehicle lies in the fact that the medicant may, with it, be applied accurately and solely to the site where one wishes it applied. Penile, perianal, vulvar and vaginal condylomata can be treated with equal ease and safety.

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## COORDINATED PROGRAM CAN MEET PROBLEMS OF CHRONIC ILLNESS

**Million Deaths Annually Due To Chronic Diseases;  
Four Organizations Urge Cooperative  
Action On Public.**

A statement has been prepared by representatives of the American Hospital Association, the American Medical Association, the American Public Health Association and the American Public Welfare Association to serve as a guide in the development of comprehensive and coordinated community programs to meet the ever growing problem of chronic illness.

"The conquest of many of the acute communicable diseases has focused increasing attention on chronic diseases as the major causes of death and disability," says the statement, which appears in the October 11 issue of **The Journal of the American Medical Association**. "It has been conservatively estimated that about 25 million persons, more than a sixth of the population, have a chronic disease. . . . The most important of the chronic diseases are heart disease, arteriosclerosis, high blood pressure, nervous and mental disease, arthritis, kidney disease, tuberculosis, cancer, diabetes and asthma. . . . Each year chronic diseases cause nearly a million deaths and are responsible for the loss of almost a billion days from productive activity. Appropriate action can prevent much of this staggering loss to our economy."

The four organizations consider the health and medical aspects of the total problem of chronic illness, including prevention, research, treatment and—most neglected of all—rehabilitation.

### Urge Expanded Health, Research Programs

On the preventive side, they point to the need for (1) intensified health department programs to control chronic communicable diseases such as tuberculosis, syphilis, hookworm and malaria; (2) expanded accident prevention programs—in industry, on the farm and in the home; (3) strengthened child and school health programs, and effective health programs directed to adolescents and adults as well; (4) widely expanded nutrition, mental health and housing programs; (5) selective laboratory and clinical examinations of apparently well persons chosen for particular age, sex, geographic and occupational groups; and (6)

health examinations of industrial employees on a much larger scale. They hope for "a basic shift in emphasis in the medical care of adults comparable to that which has occurred in obstetrics and pediatrics, in which preventive supervision and examination of presumably well persons is a major requirement of good medical practice."

In research, they say, "only a fraction of the total need is being met." What is required are (1) the training and support of a much larger corps of medical scientists and the development of teams of research workers to carry forward coordinated programs, with research institutes in chronic disease, associated with clinical facilities, as their basic units; (2) more precise information on methods of providing the necessary services for the chronically ill; (3) more research into the social and psychological aspects of chronic illness.

The problem of treatment includes that of medical care, home care, hospital care, care in public and private nursing homes, and the construction of new institutions. The four organizations call for coordinated hospital and laboratory facilities to cover all communities, so that the entire population will have ready access to their services. They observe that facilities for care of the chronically ill cannot be isolated from general medical care.

They urge expansion of public health nursing services, visiting housekeeper services, and wider use of practical nurses and nurses' aides, which will enable more chronically ill persons to be cared for at home. So will "improved housing, supervised boarding homes, medical social service, recreational and occupational therapy and vocational rehabilitation. Social security measures to maintain income such as disability insurance, old age insurance and public assistance are likewise of vital importance."

### Better Facilities Needed for Care of Patients

"The general hospital as at present constituted is often unsuited to the care of long term patients," the report states. "It may lack adequate departments for physical therapy, occupational therapy and rehabilitation, as well as sun porches, recreational facilities, educational facilities for children and an understanding of the social and psychologic needs of the chronically ill." But "hospital facilities for long term illness should be built in the very closest relation to teaching centers and general hospitals," and "most patients with chronic illness that requires hospitalization



are best cared for in a unit of the general hospital especially designed to meet their needs."

Private and public nursing homes "should be brought under state licensure laws in which provision is made for minimum standards and regular inspection," the joint statement continues. Suitable county homes should be converted into nursing homes and brought under the same laws. Many new institutions are also needed. But "undoubtedly the most neglected aspect of chronic illness is that of convalescence and rehabilitation," according to the report.

### Rehabilitation Decreases Burden on Public

"Planned convalescence and rehabilitation are particularly important in chronic disease. The chronically ill have to be made conscious of their limitations early in the course of the disease, and many of them must be retained for new occupations so that they may stay within the limits of activity prescribed by their illness and yet maintain their economic independence. . . .

"In 1943 Congress broadened the scope of the national rehabilitation program. As a result, state rehabilitation agencies were able to rehabilitate successfully nearly 42,000 persons in 1945. These were generally persons with long standing chronic impairments and illnesses. . . . That the need is still far from being met is indicated by the fact that the estimated backlog of persons in need of and entitled to such service is between one and one-half and two millions."

And yet, the report reveals, the total income of these 42,000 rehabilitated persons was increased from 12 million dollars a year to 74 million—a sixfold increase! With many of the others having to be supported by public or private assistance, and with vocational rehabilitation costing an average of only \$300 a person, "it is clear that rehabilitation is economically and socially sound."

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"There are now about 130,000 members of the American Medical Association, and if I say that 2,500 of them are active in protecting the interests of the public and medicine, I would probably exaggerate. These men are devoting a tremendous amount of time and thereby cutting their own incomes to protect the profession and the public. It is somewhat discouraging to them sneeringly to be referred to by their associates in medicine as 'medical politicians.' Were it not for the efforts of this group, all of us would now be practicing under a plan of bureaucratic regimentation. If the members of a county society do not like the way their affairs are being handled, then they should attend meetings and change the methods and their officers. If they do like them, then they should attend and give their officers support."—Louis H. Bauer, President, Medical Society of the State of New York.

## LEUKEMIA TREATED WITH URETHANE

JOHN P. McALISTER, M. D.

Camden

A recent case of myelogenous leukemia which came to my attention presented the problem of treatment, e. g., mustard nitrogen, roentgenization, or symptomatic treatment.

A search of the literature reveals that a promising drug, Urethane (ethylcarbamate), which was first tried as a growth inhibiting drug on animals, was used on man in 1943, London, England.<sup>1</sup> The response was disappointing, but further study warranted its trial in leukemias, particularly the myelogenous type. Their records in 32 cases (19 myeloid and 13 lymphatic) show (1) a fall representing near normal, in the most favorable cases, (2) a tendency for the differential count to approximate normal limits, (3) a diminution in the size of the spleen and (4) a rise in the hemoglobin level that is remarkably similar to that obtained from deep x-ray therapy. They further report that the palliative effect was comparable with other known treatment, although no claim was made on the length of life due to the recent date of their series.

Much of the information at present is vague but it has been definitely established that the effect of urethane is due to a characteristic property that may reasonably be suspected to be a growth-inhibiting factor effecting cell maturation. This fact was noted by Drs. Haddow and Sexton in their experimental work on animals, in which a significant retardation of growth of spontaneous mammary passed off rapidly when the drug was withdrawn.<sup>2</sup>

Experimental work by Murphy and Sturm<sup>3</sup> on rats revealed the following data. Fifty were inoculated with the transplanted disease which manifested itself as generalized lymphatic leukemia. Of the 50, which were given 100 mg. of urethane per 100 grams of body weight, only 3 developed the disease in comparison with forty-one controls of which thirty-three were infected.

The only report of the use of this drug in American literature is by Maringer,<sup>4</sup> who stated that in his case of myeloid leukemia a favorable effect was noticeable in subjective symptoms in about ten weeks.

Bennett, who in 1845 recognized a clinical entity which was reflected by an enlargement of the liver and spleen, was the first to apply the name



"Leukocythemia." His clinical description of leukemia was followed by Virchow and Friedreich, but it was not until 1889 that Ebstein gave the first adequate description of the outstanding symptoms of acute leukemia. One of the problems of treatment, in this invariably fatal disease, has been that of a treatment that could be carried on in the home, in those cases which were unable to secure the benefits of hospitalization. As reflected in the above experimental treatment of animals and man there is now a hope of a simple, self-administered drug which not only approximates the hospital treatment, but is one that may surpass it. In support of this statement, I offer the following case history.

### Case History

On March 24, 1947, a white female, age 40, presented herself for treatment with the complaints of a sense of weakness, weight loss (13 pounds in two months), nervousness, abnormal perspiration, anorexia, and epistaxis. Past history revealed no evidence that would be leading in the case. Physical examination was negative with the exception of a markedly enlarged spleen, which was palpable on its lower pole in the region on a level with the umbilicus. The blood count revealed: white blood cells 267,000; red blood cells, 3,220,000; hemoglobin 55%; polymorphonuclear cells, 55; neutrophilic myelocytes 34; lymphocytes 6; eosinophiles 4; and basophiles 1. This patient, having an obvious case of leukemia, was referred to the medicine department of the University of Arkansas School of Medicine, where she was accepted as a patient. A treatment of nitrogen mustard was begun and over a period of about three weeks the white blood count was reduced to 90,000. She was returned to me at this time to await further developments. After consulting Dr. Louis R. Limarzi, Associate Professor of Medicine, University of Illinois, who is doing research on leukemia with the use of Urethane. I decided to try the use of Urethane as a home remedy. The powder is dissolved in simple syrup, so that one gram of the drug is contained in one teaspoonful of the mixture. The dosage may vary from one to six grams daily. The white blood count and differential count being done once a week to determine and adjust its need. The following data was obtained:

Date	White Blood Cells	Myelo- cytes	Lympho- cytes	Eosino- Polys	Baso- philes	Baso- philes
May 30, 1947	228,000	29 (N)	6	55	3	6
June 28, 1947	153,000	10 (N)	1	83	1	6
July 5, 1947	107,000	29 (N)	1	53	2	3
		12 (B)				
July 19, 1947	87,500	10 (N)	2	84	0	4

As a control the drug was discontinued on July 1947. A white count was made ten days later and the results were as follows: white blood cells 198,000; myelocytes 28 (N); lymphocytes 5; polymorphonuclear cells 44; eosinophiles 6; and basophiles 1. At the end of this control period urethane was again started and within a period of ten days the count had dropped to 105,000 white blood corpuscles. As of September 1, 1947, the count had been further lowered to 56,000 white blood corpuscles. The patient had a sense of well being, and was physically capable of attending to the duties of a farm wife, which included the care of her two children and an infant.

### Summary

1. Urethane seems to be a cheap, simple, well tolerated drug which may be used in the home provided frequent blood counts are made to determine dosage.

2. In the light of the literature Urethane offers only palliative relief in the treatment of leukemia.

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### OBITUARY

THOMAS L. SAVIN, age 72, died at his home in Little Rock, October 3rd. A graduate of the University of Maryland School of Medicine, he served for some time as resident physician in the University Hospital, Baltimore, and located as an eye, ear, nose and throat specialist in Pine Bluff in 1904. He moved to Little Rock in 1922. He was a member of the Pulaski County Medical Society, the Arkansas Medical Society, and the Masonic bodies at Pine Bluff. Surviving relatives are his wife, a daughter and a son.



## ROUND TABLE OF THE COMMITTEE ON MATERNAL AND CHILD WELFARE

I. F. JONES, M. D., Chairman  
Fort Smith

The Committee on Maternal and Child Welfare is starting a new column. This column is open to each and every physician in Arkansas, especially to those doing obstetrics. We will be glad to have your reaction about this column so that we may change it to the benefit of the members of the Arkansas Medical Society. We are going to try and present the case history each month with the comments, so that there will be a definite educational value to this column. These cases will, of course, remain in complete anonymity. The following case has been taken from "Maternal Mortality Reports" and carries with it a very good example on the dangers of hemorrhage in the last trimester of pregnancy.

### Case No. 42

The patient was a 28 year old white multipara who was admitted to the hospital at 4:15 A. M. on September 21 in deep shock and bleeding profusely from the vagina. The family and past history were noncontributory. The patient's previous pregnancies were normal and terminated at term without complications. All previous puerperia were normal. The last menstrual period was in December and the estimated date of confinement some time in September. The present pregnancy was essentially normal insofar as the history could be obtained from the family, until 11:30 P. M. on September 20 at which time the patient awakened from sleep feeling nauseated. Shortly thereafter she vomited and began to bleed from the vagina. The blood was bright red without clots and it was estimated by the family that she bled approximately 1 pint at this time.

The midwife who was supposed to attend her was called and according to the report she did a rectal examination on the patient. It was her impression that the patient had ruptured her membranes and she stated that labor would probably begin soon. The bleeding ceased for a time but at half-hour intervals the patient had episodes of nausea and vomiting at which time she bled moderately severely. These episodes continued for approximately two hours. The midwife then called the physician who had seen the patient during her prenatal period. Upon his

arrival at the patient's home he advised immediate hospitalization. This was approximately at 2 A. M. on September 21. While being transferred to the ambulance the patient again had a severe episode of bleeding which was followed by a continuous slight flow. At 4:15 A. M. she was admitted to the hospital in an unconscious state, her pulse rate being 140 and her respirations 44 per minute. The blood pressure at this time was 50/0 and the patient was immediately given 500 cc. of blood plasma intravenously and  $\frac{1}{4}$  gr. of morphine sulphate. Oxygen per mask was started and then the patient was typed and crossmatched. At 4:30 A. M. 500 cc. of citrated blood was started and at this time the blood pressure and pulse were unobtainable and the respirations were shallow and rapid. At 5:00 A. M. the blood pressure was 64/38 and the pulse was counted at 144 per minute. At this time the patient began to react, became nauseated and while vomiting expelled a large clot from the vagina and immediately began to bleed again profusely.

The patient was taken to the operating room after it was decided that an immediate cesarean section was the procedure of choice. She was in such deep shock that no anesthetic was administered, oxygen being given continuously by mask. A classical incision was made in the uterus and a full-term dead child weighing 6 lbs. 7 oz. was delivered. The placenta was found lying over the internal os and following its manual removal the uterus contracted well. Oxytocies were given and the uterus and the peritoneal cavity were closed in the routine manner.

The patient was in profound shock at this time, neither the blood pressure nor the pulse being obtainable. During the operation she received 2,000 cc. of citrated blood and immediately following it 1,000 cc. of blood plasma. She began to react about 7:00 A. M. at which time the blood pressure was 60/38. The uterus contracted well at the time of delivery and remained the same. Penicillin was started prophylactically and another transfusion of 500 cc. of citrated blood was given at 2:00 P. M. At this time the pulse rate was 184 and the blood pressure 100/76. Along toward evening the patient became restless, did not respond to stimuli and her blood pressure began to fall. Her temperature rose to 103 degrees F. and more whole blood was given. In spite of ephedrine, adrenal cortex and oxygen the radial pulse remained impalpable. The patient had a slight convulsion at 8:00 A. M. and another at 10:00 A. M. The lung fields became



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moist, respirations remained very shallow and a slight amount of rusty frothy fluid began to drain from the mouth. At 10:05 A. M. respirations ceased. No autopsy was obtained.

**Discussion:** The determining factor in this death from placenta previa was in all probability the rectal examination carried out by the midwife. It is now well established that patients with placenta previa rarely bleed to the point of shock and unconsciousness unless an examination has loosened additional placenta and traumatized the bleeding area. In other words, it seems likely that the repeated episodes of hemorrhage which the patient suffered following the rectal examination would not have occurred had she been sent to the hospital without examination immediately after the initial bleeding. In the opinion of the Committee, therefore, the case is a midwife death and recalls to mind the fact that such midwives are a menace to childbearing women. The midwife is to be incriminated not only for performing the rectal examination but also for the long delay in summoning the help of the physician and the patient's arrival at the hospital, namely 2 hours and 15 minutes, and it is quite conceivable that had this trip been expedited, prompt blood transfusion at the hospital might still have saved the patient. In sum, this case was clearly a preventable death due chiefly to the rectal examination performed in the presence of evident placenta previa abetted by the long delay in placing this patient under hospital care.

### FINAL EDITION OF "COURAGE AND DEVOTION BEYOND THE CALL OF DUTY"

The final edition of the book, "Courage and Devotion Beyond the Call of Duty," which is composed of official awards and citations received by U.S. medical officers during World War II, is now being prepared by Mead Johnson & Company, Evansville, Indiana.

Any physician, who has not already done so, should write to Mead Johnson & Co., advising them of the awards he has received and also send a typewritten or photostatic copy of his citations. The following additional information would be of assistance in compiling the material for this book: Present rank or rank at time of discharge. Branch of service. From what university and in what year M.D. degree was received. Date of entry into the service.

## NASAL PLASTICS \*

ELLERY C. GAY, M. D.  
Little Rock

Prior to 1914 there were many recorded attempts to foster nasal reconstructive surgery. During the next eight years, this particular part of facial surgery received a great deal of attention, and many advances were made in the care of war injuries of the face and nose.

Probably the greatest steps were developed in the "late" care of such cases, with the use of delayed flaps from adjacent areas, and from distant areas, such as pedicle flaps from the upper arm.

Two advancements have been made during the past five years; again having war injuries as a stimulating factor in their development. The first is based originally on the experiences from World War I.

In this instance, those charged with the responsibility of facial care, foresaw another such war and made plans for the early care of those injuries. This was reflected in the plans of the War Department in setting up Auxiliary Surgical Groups, each group having at least four teams of maxillo-facial surgeons whose duty it was to institute early care and early protective surgery. These teams became front line surgical teams, operating in the field and evacuation hospitals within a few miles of the front and consequently received patients very shortly after injury.

One can readily see why this was an urgent need. The general surgical teams were busy with the care of chest and abdominal surgery and could ill afford to take three-four hours for one face case which probably would live anyway, even though badly disfigured; whereas the abdominal case needed immediate attention to save that patient's life.

Future figures to be released by the War Department will show the merit of such a working plan with the maxillo-facial teams as supplemental front line surgical teams. One such volume representing the Wartime Service of the 2d Auxiliary Surgical Group, of which I was a member for thirty-seven months, in charge of a maxillo-facial team, earning eight battle stars and an Arrow

Writing in the September 6 issue of *The Journal of the American Medical Association*, John E. Leach, M. D., and Guy F. Robbins, M. D., a National Cancer Institute Fellow, report the results of a recent survey of 500 new patients at

\* Read before Section on Ophthalmology and Otolaryngology, Arkansas Medical Society, Little Rock, April 16, 1946.



Head for amphibious landings served, throughout the African-Sicilian, Italian, Southern France, and Germany campaigns, is now being printed by Kister and Company of Denver, Colorado. This will be released in July of this year, fully approved by the War Department.

The second advancement has been made in the use of plastics for reconstruction of lost parts in cases in which surgery is contraindicated; in the aged and debilitated. It is also used as a temporary coverage in cases that require multiple surgical procedures over a protracted period of time, thus serving as a substitute until the surgery is completed.

Special centers were set up in the General Hospitals, overseas, and special centers are now in operation within the States for the care of all types of maxillo-facial injuries; combining the work of plastic artificial elements and reconstructive surgery.

In civilian practice, one does not see the massive facial injuries seen in war casualties. However, the nose is the recipient of many injuries, and congenital abnormalities, and requires corrective surgery either from a functional or a cosmetic reason.

Conditions which require corrective surgery are:

1. Deformities of the alae, exclusive of congenital cleft lip.
2. Deflected septum.
3. Deformities of the tip and columnella.
4. Depression of the nasal bridge.
5. The nasal hump.
6. The twisted nose.
7. New and old fractures of the nose.
8. Syphilitic nose.
9. New growth of the nose.
10. Rhinophyma (pound nose).
11. Traumatic evulsion (partial or complete).
12. Contracted scars.
13. Burns.

## SUMS SPENT TO EDUCATE PUBLIC ABOUT CANCER BRINGS DIVIDENDS

Large sums of money used in the past few years to educate the public in recognition of the early symptoms of cancer have already shown some effect, according to two members of the Medical Department of New York City's Memorial Hospital.

Memorial Hospital's internationally known cancer clinic. Comparing the results with those of a previous study covering the period from 1923 to 1938, they say that "significant progress is

being made—people in this metropolitan area are seeking medical attention sooner."

In spite of this indication of progress, the weak spot in the current drive against cancer is still, say the writers, "in the period before therapy—the lapse of time between first symptoms and the beginning of treatment. This includes the time from first symptoms to first physician, from first physician to diagnosis and from diagnosis to therapy." Because of undue delay in diagnosis or treatment there has been little real reduction in the rate of deaths from cancer—a reduction made possible through great strides in methods of cancer diagnosis as well as in surgical and radiation therapy.

The doctors stated that in 193 of these 500 cases physicians seem to have been partly or entirely responsible for such delay. Since the survey was based on information obtained from patients alone, the writers believe that some patients may have minimized their own negligence. Furthermore, during the period of the study there was still an unfavorable wartime ratio of physicians to patients. Without intending "to draw criticism to the medical profession's role in the fight against cancer," Dr. Leach and Dr. Robbins point out:

"The old saying 'more is missed in medicine by not looking than by not knowing' is particularly applicable in the diagnosis of cancer today. . . . In over 80 per cent of the patients in this study a diagnosis of cancer could have been suspected or made by the initial physician if only a careful history and physical examination had been made. . . . Certainly one way to make real progress in the reduction of delay is the encouragement of annual complete physical examinations in all patients, particularly those 40 years of age and over. . . .

"It was evident from the replies of these patients that the initial physician in numerous instances had failed to impress the patient with the seriousness of the illness and the importance of dealing with it promptly. . . . The treatment of cancer is as much an emergency as a fracture and much more important to the patient's life."

The writers conclude:

"The hope of making appreciable immediate reductions in cancer mortality lies with the individual physicians. The cancer clinic can reach but relatively few persons. The physician, whether he be general practitioner or specialist, internist or surgeon, must operate his own cancer detection clinic in his office and in his hospital service, before any reduction in cancer mortality is made.



# THE JOURNAL OF THE ARKANSAS MEDICAL SOCIETY

Owned by the Arkansas Medical Society and Published  
under direction of the Council

W. R. BROOKSHER, M. D., Editor  
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## EDITORIAL

### ARKANSAS HEALTH PLAN

CHAS. R. HENRY, M. D.\*  
Little Rock

With offices open in the Waldon Building in Little Rock and enrollment activities well under way, the Arkansas Health Plan is participating in a broad educational program to explain the Plan to interested groups and to the public throughout Arkansas.

The program was initiated with a direct mail series of three educational letters to nearly 2,500 Arkansas employers.

The first of the three letters described the development of the Arkansas Health Plan as a cooperative effort of the Arkansas Medical Society, the Arkansas Hospital Association, and representative civic leaders. It was signed by L. T. Evans, M. D., as president of the Medical Society.

Some of the unusual features of the Plan were outlined in the second of the three letters, which

was sent by Mr. Moody Moore as president of the Arkansas Hospital Association.

The third of the letters was signed by John R. Mannix, president of the John Marshall Insurance Company, which is underwriting the Plan. It was reproduced on the cover of a folder giving an outline of the Plan's benefits, and it expressed the pleasure of the John Marshall Insurance Company in sharing in this pioneering project.

According to M. L. Daugherty, director of the Plan, the letters resulted in inquiries from employers in every part of the State. Many of these are expected to bring about enrollment of employee groups in the Plan.

Meanwhile, the educational schedule calls for similar mailings to farm and rural groups. As enrollment increases, it also is planned to mail detailed information about the Plan to all members of the Arkansas Medical Society and to all Arkansas hospitals.

More than a dozen speaking engagements before groups of various types have been filled by Mr. Daugherty. Among these have been addresses before meetings of the Tenth Councillor District and the Fourth Councillor District, before students in the orientation course at the University of Arkansas Medical School, before the State-County Convention of Extension Agents and the State Convention of Officers of the Arkansas Farm Bureau.

Interest in the Plan, Mr. Daugherty reports, continues at a high level. He has visited individual physicians in a number of different communities, and has expressed pleasure at the excellent reception he has been accorded. Both physicians and hospital administrators have advanced many valuable suggestions for forwarding the Plan, and these are being incorporated into the program as circumstances permit.

Mr. Daugherty also has been greatly impressed by the assistance he has received from medical men and hospital leaders in contacting business men, employers and group officials who might be interested in enrolling members of their organizations in the Arkansas Health Plan.

Particularly in the beginning stages of the new program, these contacts are of great importance. Once there has been experience with the operation of the Plan in any community, its advantages rapidly become self-evident. Many doctors have gone out of their way to provide the introductions that will lead to the first enrollment in their areas, Mr. Daugherty said.

It has been suggested that doctors contact the Arkansas Health Plan directly if they either wish

\* Chairman, Committee on Medical Service and Public Relations.



more information about the Plan themselves or if they wish the Plan to send information to employers or other group leaders in their communities. Inquiries should be directed to:

Mr. Milton L. Daugherty, Director  
Arkansas Health Plan  
Waldon Building, Little Rock, Arkansas  
Phone 5-1695

#### Arkansas Health Plan Questions and Answers

Q. When the doctor has provided service to a member of the Arkansas Health Plan, how should he proceed to collect payment?

A. The doctor should ask to see the subscriber's Identification Card. From this he should take the subscriber's Group Number and Identification Number. The bill then should be sent directly to the John Marshall Insurance Company, which is underwriting the Plan, at the address shown on the Identification Card. The bill should show the subscriber's name, the patient's name (if a dependent of the subscriber), the group number, the identification number, the location at which the service was rendered, and the date and nature of the service. For the doctor's convenience, the Plan furnishes simplified statement forms which can be obtained upon request to the Arkansas Health Plan, Waldon Building, Little Rock, Ark. Payment of all bills up to the amount provided in the Plan's Schedule of Benefits is made directly to the doctor immediately upon receipt of his statement.

Q. Can individuals enroll in the Plan?

A. For the present the Arkansas Health Plan will operate only as a group program open to groups of five or more persons, since group operation enables broader benefits at lower cost. Eligible for enrollment will be employed, farm and other established groups so constituted that regular remittance of the premium is automatic. It is hoped that protection for individuals can be made available in the future.

Q. Does the surgical portion of the Plan cover surgery performed outside the hospital?

A. Yes. Payment is made for both surgical and obstetrical services whether performed in the hospital, the doctor's office or the patient's home.

Q. Which members of the family can enroll in the Plan?

A. Husband, wife and all unmarried children under 19 years of age. In its beginning stages at least, the Plan does not provide for the enrollment of dependents such as the subscriber's parents, brothers, sisters, etc.

#### A. M. A. MEDAL TO HONOR GENERAL PRACTITIONER

The creation of a midwinter session for the House of Delegates of the American Medical Association and with it a scientific meeting designed particularly for general practitioners was an action of profound significance to physicians and the public. During recent years the need for increased emphasis on the work of the general practitioner has become most apparent. The establishment of the certifying boards in the various specialties has been associated with a tendency to limit the development of general practitioners and also the activities carried on by such physicians in hospitals. To overcome this trend the American Medical Association created a Section on General Practice as a feature of its Annual Session. Now meetings devoted particularly to the needs of the general practitioner at the supplemental session extend still further the interest of the American Medical Association in the education and practice of these physicians.

During the last few years organizations have been established in the field of general practice which have apparently been designed to act as pressure groups to protect the interests of the general practitioner and to forward his work. Since the American Medical Association is the agency which includes the overwhelming majority of physicians in the United States, including a preponderance of general practitioners, the activities of the American Medical Association in this field are likely to have more potency than those of smaller or more localized bodies.

At the meeting of the Board of Trustees in Chicago September 4 and 5 the Board established a special gold medal for a general practitioner who has rendered exceptional service to his community. This award, similar to the American Medical Association's Distinguished Service Medal, which has been given annually since 1938 for the scientific advancement in the field of medicine, will be conferred on a general practitioner for the first time at the supplemental session in Cleveland on Jan. 7, 1948. This medal is designed especially to honor a general practitioner who has served as a family physician and who has in that capacity received the recognition of his community. The award will be known as "the medal of the American Medical Association for exceptional service by a general practitioner;" it will include not only the medal but a certificate indicating the reasons for the award. Nominations for this award may be submitted to



the headquarters office of the American Medical Association in Chicago by any state medical association or any community service club such as Rotary, Kiwanis or Lions Clubs, by Chambers of Commerce, women's clubs, community councils or similar groups. The nominations should include the name and address of the physician, his scholastic record and a record of his medical service to his community. The nominations may be addressed to the General Practitioner Award, American Medical Association, 535 North Dearborn Street, Chicago 10. When they are received, they will be submitted to the executive committee of the Section on General Practice of Medicine of the American Medical Association, which is composed of Drs. Wingate M. Johnson, Winston-Salem, N. C.; Paul A. Davis, Akron, Ohio, and E. A. Royston, Los Angeles. This committee will select five leading candidates, whose names will be submitted to the Board of Trustees. The Board in turn will nominate three of these to the House of Delegates. On the opening day's meeting at the supplemental session the House of Delegates will receive the nominations together with a record of each of the candidates and will choose by ballot the general practitioner who is to receive the medal.

By this award the American Medical Association will focus the interest of the medical profession and the people of the United States on the tremendous services given to them by general practitioners of medicine. The records of those who are nominated will indicate the range of the activities of such physicians.—A. M. A., Sept. 13, 1947.

## EDITORIAL COMMENT

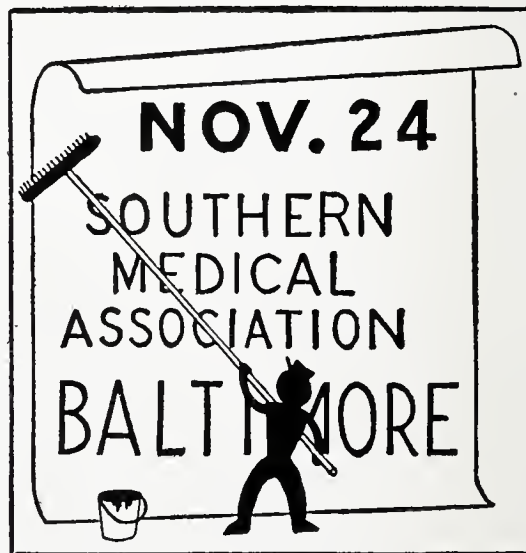
### ANNUAL MEMBERSHIP ASSESSMENT

The attention of county society secretaries and members is directed to the fact that the House of Delegates at the 1947 annual session placed the annual membership assessment of the Society at ten dollars per year, effective with January 1st, 1948.

### AMENDMENTS TO CONSTITUTION AND BY-LAWS

The following proposed amendments to the constitution and by-laws were presented to the

House of Delegates at the 1947 annual session and are published in The Journal for the information of the members and in accordance



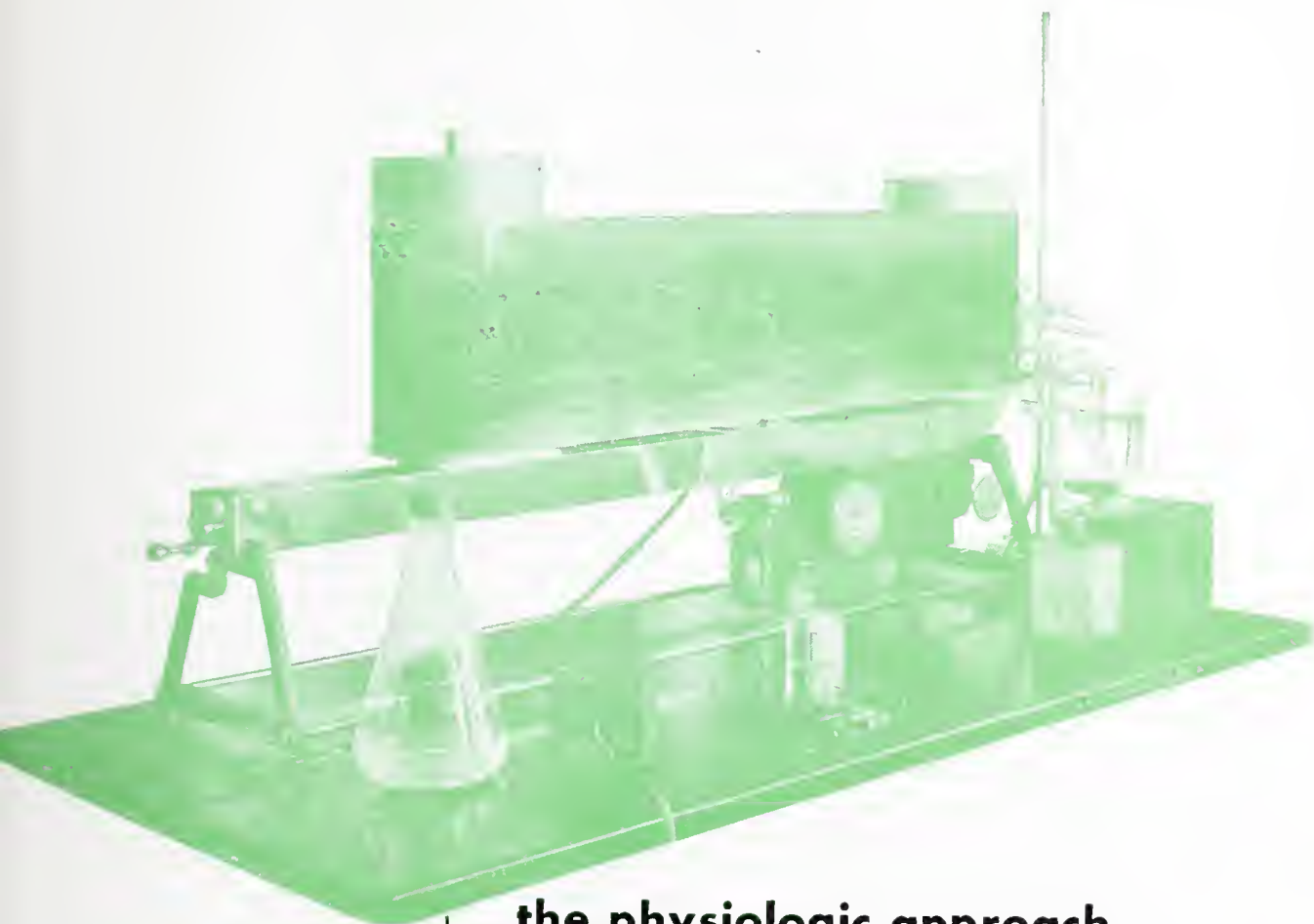
**AN OUTSTANDING MEDICAL MEETING**—the Annual Meeting of the Southern Medical Association in Baltimore November 24-26. In the ten general clinical sessions by Baltimore physicians and surgeons, the twenty-one sections and the scientific and technical exhibits, every phase of medicine and surgery will be covered—the last word in modern, practical, scientific medicine and surgery. Addresses and papers by distinguished clinicians not only from the South, but from many parts of the United States.

**REGARDLESS** of what any physician may be interested in, regardless of how general or how limited his interest, there will be at Baltimore a scientific program and recreational facilities to challenge his every interest and make it worth-while for him to attend.

**ALL MEMBERS** of State and County medical societies in the South are cordially invited to attend. And all members of state and county medical societies in the South should be and can be members of the Southern Medical Association. The annual dues of \$5.00 include the Southern Medical Journal, a journal valuable to physicians of the South, one that each should have on his reading table.

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with prescribed practice. Final action will be taken by the House of Delegates at the 1948 annual session.

#### **Constitutional Amendment:**

Article XI—In the second sentence, to substitute the figures "\$25.00" for "\$5.00."

#### **Amendment to the By-Laws:**

Chapter IV, Section 2—To add an additional sentence reading:

"The Section on Ophthalmology and Otolaryngology shall be represented in the House of Delegates by one delegate."

### **SICKNESS STATEMENTS FOR RAIL WORKERS**

Physicians throughout the Nation are being asked to furnish medical evidence to substantiate the claims of railroad workers who may now draw cash sickness benefits under the Railroad Unemployment Insurance Act. The Railroad Retirement Board pointed out that unless an application is mailed not later than the seventh day after the first day of sickness claimed, it may not be received within the legal time limit for filing applications. As a result, the employee may lose 1 or more days' benefits. Doctors are asked either to return each completed Statement of Sickness to the patient, or mail it promptly to the office of the Board to which it is addressed.

### **RANDOM THOUGHTS OF THE SECRETARY**

September 17th. Across our desk today passes the second roentgenogram we have had showing dextrocardia.

September 19th. Watching the El Dorado "Wildcats" swamp the local eleven with precision this night, D. E. White may now know that we shall not bet against them this season.

September 21st. In a not too turbulent passage but one in which there is undue disturbance of the semicircular canals of eight passengers, we travel to Little Rock and meet with the committees on medical education and hospitals and mental hygiene hearing full exposition of the proposed integration of the functions of the medical school and the state hospital for nervous diseases. As we depart, we give the press a summary of action taken, that worthy's reply, "is that all?" indicating his total unfamiliarity with the travails which accompany sessions of medical society committees.

October 4th. To Fayetteville where the University Stadium is experiencing such a manpower shortage that only one gate may be opened for customers to enter the west side stands, a not too happy situation, and, for that matter, neither was the game, the Razorbacks winning by the hardest.

October 8th. It does not seem possible that the American people would turn back and ask for restoration of controls and price fixing, but, on second thought, who are those who advocate this return?

## **CORRESPONDENCE**

September 24, 1947

To The Editor:

The University Medical School has started a full time Pediatric Department. I have been appointed the Professor and Head of this department and would like to send you this short note which I hope you can place in the Journal.

It is the purpose of the Pediatric Department to be of service to the people of the State and the practising physician in any problem on children's care. This would include not only medical, but also psychological and psychiatric problems, preventive pediatrics, well baby conferences, the crippled children's program and the like. I hope to be available to practitioners in their local society meetings by visiting the various areas and taking part in the state society meetings. For the present time the department is in a period of organization in which it is hoped that another full time instructor and a full time resident pediatrician and intern will be procured. As the practitioners already know there are beds available in Little Rock at the University Hospital and the Children's Hospital to hospitalize those children who need such care. Likewise, there are adequate clinical facilities to cover the ambulatory patients. The building program of the University includes an enlargement of the Medical School facilities to establish a more adequate and greater coverage for the state's medical problems. This will include a greatly increased number of pediatric beds.

It is our hope to cooperate and collaborate with practitioners and their patients by offering them these facilities and thus aiding in any consultative way that we can. In this way, we can take the extra burden off the practitioner with his more difficult problems. It is intended to send a letter of findings to the referring physician.

The Pediatric Department will be shortly certified by the Council of Hospitals and Education of the American Medical Association for approved training leading to certification by the American Board of Pediatrics.

This service should be of great help to the people and the children of the State of Arkansas. There is an ever expanding horizon of opportunities for us to be of service in this capacity.

Yours truly,

Wm. A. Reilly, M. D.

Professor and Head of Pediatric Department.





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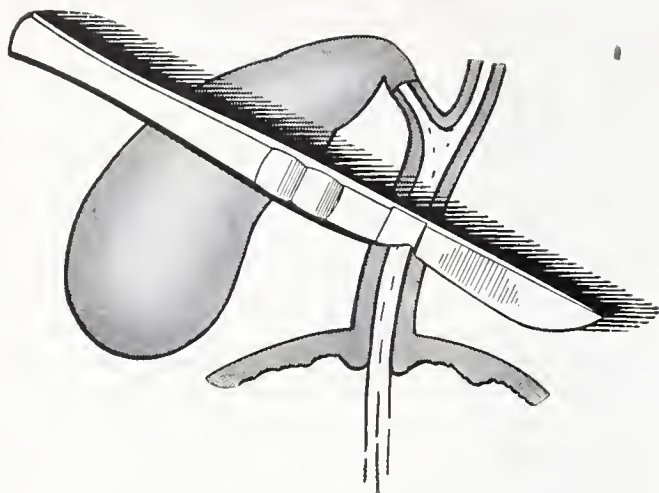
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## PROCEEDINGS OF SOCIETIES

The Benton County Medical Society met in dinner session at Rogers, October 9th, for the following program: "Common Cardiac Disorders," A. A. Blair, Fort Smith.

G. C. DeBolt, Secretary.

The Craighead-Poinsett County Medical Society met in dinner session October 2nd at Jonesboro for the following program: "The Use of Curare in Anesthesia," M. D. Prickett; "Extra-Peritoneal Cesarean Section," E. T. Ellison; "The Therapeutics of Pyloric Stenosis," W. A. Reilly; "The Clinical Approach to Carcinoma of the Skin," I. Meschan, and "The Modern Therapy of Peritonitis," Gilbert O. Dean, all speakers of Little Rock.

J. H. McCurry, Secretary.

The American Academy of Allergy will hold its annual convention at Hotel Jefferson, St. Louis, Missouri, December 15-17 inclusive. All physicians interested in allergy problems are cordially invited to attend the sessions as guests of the Academy by registering without payment of fee. The program, the scientific, and technical exhibits have been arranged to cover a wide variety of conditions where allergic factors may be important. Papers will be presented dealing with the latest method of diagnosis and treatment as well as the results of investigation and research. Round table conferences will be held on Monday afternoon, December 15, 1947. Advance copies of the program may be obtained by writing to the Chairman on Arrangements, Charles H. Eyer-mann, M. D., 634 North Grand Boulevard, St. Louis, Missouri.

## PERSONALS AND NEWS ITEMS

F. F. Ferguson and A. W. Thompson have been elected surgeons of the American Legion posts at Nashville and Gurdon, respectively.

Fred H. Krock, Fort Smith, has been accepted as a Fellow of the International College of Surgeons.

T. P. Foltz, A. S. Koenig, Fort Smith, and Dorothy Goetze, Hot Springs, conducted a diagnostic cancer clinic at Clarksville October 9th.

D. M. G. Frailey has moved from Mount Judea to Harrison.

Among those in attendance at the Kansas City



Southwest Clinical Conference were H. C. Dorsey, J. D. Olson and W. L. Shippey, Fort Smith, and John C. Faris, Jonesboro.

M. C. Hawkins, Jr., Searcy, and James Donald Hayes, Little Rock, have been accepted as Fellows of the International College of Surgeons.

Dr. and Mrs. D. W. Goldstein, Fort Smith, spent a recent vacation at Edgewater Gulf, Mississippi.

Max J. Mobley, formerly of Crossett, is now associated with the Gardner Clinic at Russellville.

J. T. Matthews has been elected surgeon of the Heber Springs post, American Legion.

E. Frank Reed, formerly of Little Rock, is now located for practice at 916 Cherry Street, Pine Bluff.

A. A. Blair and J. K. Thompson, Fort Smith, attended the Regional Conference of the American College of Physicians in Oklahoma City, September 20th.

F. E. Shearer, Fort Smith, spent a recent vacation in Kentucky.

Hoyt R. Allen, Little Rock, attended meetings of the Council of the American Proctologic Society in Chicago during September.

## BOOK REVIEW

**The Years After 50.** By Wingate Johnson, M. D., professor of clinical medicine, etc., Bowman Gray School of Medicine of Wake Forest College, Winston-Salem, N. C. Pp. 151. Price \$2. New York; Whittlesey House, McGraw-Hill Book Company, 1947.

We are living in an "Age of Age." Life expectancy has increased tremendously the last quarter of a century. There is a growth of interest in the problems of maturity and old age.

This little volume is well written and should prove of great interest to the layman. It contains a practical philosophy of living together with plenty of "horse-sense" regarding diseases that occur in older people.

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## The Diagnostic Family is Growing

A new member has been added to the ever-growing Ames Diagnostic Family. The name of the latest arrival is—Hematest.

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in the treatment of overweight

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3. ". . . amphetamine-induced loss of weight is almost entirely due to anorexia."
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\*Harris, S.C.; Ivy, A.C., and Searle, L.M.: The Mechanism of Amphetamine-Induced Loss of Weight: *A Consideration of the Theory of Hunger and Appetite*, J.A.M.A. 134:1468 (Aug. 23) 1947.

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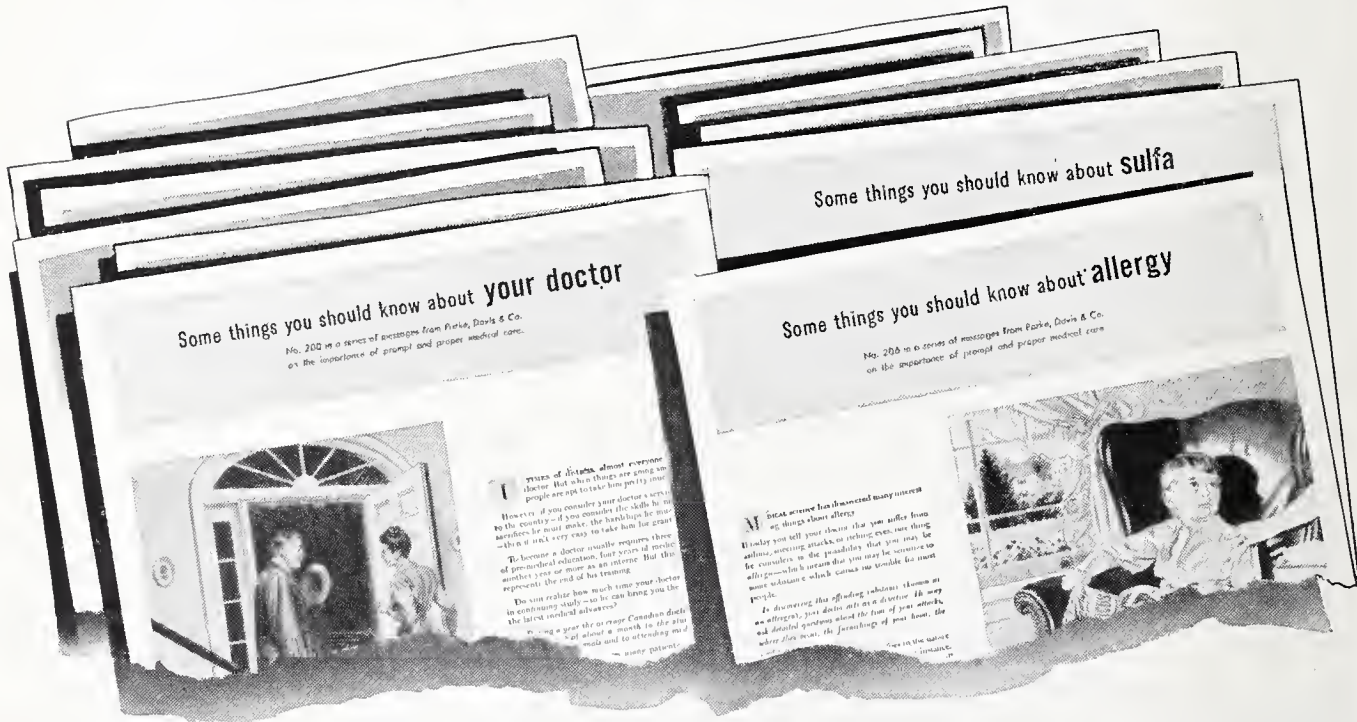
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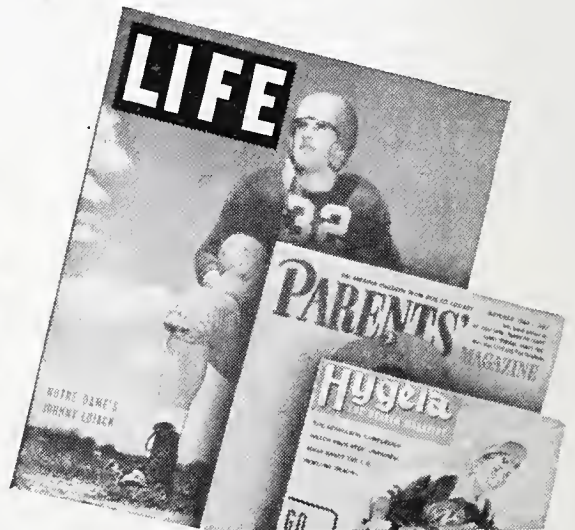
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### UROLOGICAL PATHOLOGY IN THE MAKING\*

By T. LEON HOWARD, A. B., M. D., F. A. C. S.

Associate Professor of Urology, University of Colorado  
Denver

Before entering into the subject that has been selected for discussion in this paper today I want to take a few minutes to pay my respects to the man your Program Committee had chosen for this urological talk. Many in this audience probably did not know that I am attempting to take the place of a beloved friend, Dr. A. I. Folsom, whose tragic death occurred less than a year ago between Hot Springs and his home town, Dallas, Texas. It would have been a rare treat for you to have heard this master of English oratory, lucidly and in simple words explain to you, the surgeon and physician, the urological subject he had chosen for your enlightenment—the "Pathology in the Female Urethra."

Alfred Folsom died, as you and I would like, at the height of his medical career. He received every honor that American Urology could bestow on him. As his friend, I came this great distance, not to stand in his shoes (for I know of no urologist who could fill them), but with a hope that I can give you just one thought that would be the means of saving a life, for that is what he would have done.

Your presence here today means only one thing. You are seekers of knowledge. There lived in the 16th Century a Jesuit priest, who in my opinion has expressed better than anyone else what this thing called knowledge consists of. He expressed it in this way. "Knowledge is long, and life is short, and he who does not know, does not live." If you will digest this for a moment you will realize not only how deep into our own lives, but into civilization itself this young priest's insight was, for he was only 30 years old when he wrote this fact.

This same cloistered monk threw into our laps another indisputable truth when he said, "Reputation is bought for the price of labor and what has cost little is worth little."

It was his statement about knowledge that brought forth the title of this paper, "Urological Pathology in the Making." To me, a urologist who learned his specialty for 37 years the hard way, most of the diseases of the upper urinary tract have for their basic cause either a congenital defect or one acquired in early childhood, and the first cause is by far the greatest.

I am of the opinion too that you men of medicine are doing more to prevent pathology today than we men of surgery. The surgeon has reached nearly a state of perfection in correction of pathological entities after they have become manifest, but has he given sufficient thought to correcting the conditions that are for the making of pathology if neglected?

To the general surgeon this statement is a mild criticism, but to the urologist, whoever he may be, if he is guilty of this failing, a direct challenge. The urologist in turn will reply, "How can I correct a condition it is not my privilege to see until too late?" In the majority of instances this is a correct answer. So where does the fault rest?

You are probably wondering why I haven't mentioned in the above sentence the slave of medicine—a mother's prayer and a father's hope—the pediatrician. It is because I have a special place for him in this address. This man occupies a unique place in the halls of medicine. He has the patience of a Job, and the wisdom of a Solomon. This wisdom has to take in all the known specialties.

If I respect this man's ability so much, why should I have any fight with him? Yet, I have, for it is this master brain that first sees "Urological Pathology in the Making," and we the urologist must convince him that he and he alone should be the first to recognize the causes that invariably lead to diseases of the urinary system in time to prevent the destruction of these vital organs.

At this point let me leave this thought with

\*Read, with lantern demonstration, April 17, 1947, before the 71st Annual Session, Arkansas Medical Meeting, Little Rock.



all of you: The present longevity of life was not established by those with defective renal bodies. One may reach three score years and ten with defective organs in any part of the body except the kidneys, and I am using this in the plural. No one ever lived to any great age with bilateral renal pathology, the best example being the unfortunate with the congenital cystic type of kidney.

I assure you not a day passes with a busy urologist that he does not see in the adult the destructive effects of neglected congenital anomalies. There may be an excellent excuse for much of this pathology in the middle age patient, for the urologist of 20 to 30 years ago was not recognizing this pathology in the child, but to-day there is nothing to excuse any one of you for failing to diagnose correctly pathology in the child. The urological system is now an open book to any finished urologist and I beg of you to take advantage of this fact and not procrastinate, but use him in solving these problems.

No one but a urologist should be required to know the multitude of embryological defects the urinary system has to contend with, but the obstetrician and pediatrician who first care for the baby should recognize at least the simplest types.

The simplest of all the congenital defects in the male child that can produce many, and at times serious, urinary complications is the pinpoint meatus. The obstetrician who circumcises this boy is responsible for recognizing this condition. It is just as much his responsibility to do so as it is for him to perform a good circumcision, and this defect should be corrected at the same time.

A pinpoint meatus has all the deleterious effects of a stricture of the same caliber in the urethra.

Figure No. 1 shows the normal bladder, urethra, and urethral meatus during the act of voiding. I often wonder how many physicians ever watch the boy patient urinate. You will carefully subject him to a most meticulous scrutiny, yet allow this one of the easiest and often the most important inspection go unchecked.

The obstetrician has nothing to cut off in the girl babies. Consequently, it is directly the responsibility of the pediatrician to find out about the female urethral and labial anatomy. It is astounding how much pathology one can find there if he will only look, but he is like the diagnostician who examines everything about a man except his prostate, which in 20 cases out

of every 100 is more important to know about than his heart.

The female child can also have a contracted meatus. She also can have an adherent foreskin covering a clitoris, packed with smegma, which also leads to enuresis as well as many nervous symptoms, including masturbation not only then but throughout young womanhood.

I know of no fluid in the universe that carries so many messages as that fluid we call urine. Life, health, and happiness hang in the balance each day for untold millions on what this liquid contains. You are the interpreters of these messages and you should be very certain you are reading a correct message.

It is much easier to interpret the male child's urine correctly than the female. I wager that nine times in ten you are examining a voided specimen brought to you, and you know and I know a voided specimen that shows pathology especially from a female is misleading and for correct facts utterly worthless. You who are making this mistake I can't believe are doing it from ignorance, but are following the line of least resistance.

If you will get the habit of catheterizing those girls whose voided urine contains pus, you will be surprised at how many have a vaginal discharge that has been there and is producing this pus since the diaper age, with no pus in the catheterized bladder specimen.

How many of you realize how much a diaper has to do with urological pathology in the making? A pediatrician friend asked me many years ago why girl babies had so much more pyelitis than boys and how to stop it? The answer how to stop it answers both; namely, eliminate the diaper in girl babies. You have this same problem in the female patient who uses toilet paper to wipe her feces into the vagina and across her urethral meatus. If this occurs in the adult, then how much more sensitive are these little ones to infection from bacterial laden feces packed many times a day into the vagina and urethra by a tight diaper.

Congenital strictures of the urethra, as well as occasional traumatic stricture, always have to be ruled out in the male, for they are the cause of enuresis, back pressure, infection, and all the complications that arise from them. For a family physician, pediatrician or a urologist to casually tell the parent that enuresis in their child doesn't amount to anything and time will



cure this condition without a complete urological examination is next to criminal.

When pathology occurs at the bladder neck the same chain of symptoms result both in the male and female, producing identically the same symptoms, and has to be handled the same way as in the adult; namely the removal of the obstructing cause. For the protection of the upper urinary tract and bladder, it must not be delayed as in the adult, for you are dealing with tissues and organs that have not developed the immunity to infection, etc., that age bestows.

Bladderneck pathology in the young is one of the commonest of the congenital defects. I will not go into the various types of these obstructive causes, but from a careful maternal history, urine, and physical examination, and, in the patient who has reached a discerning age, you should elicit sufficient evidence to make catheterization after voiding **desirous**. If you are so set in your ways that this last sentence is wasted, then I am sorry, for you are going to write the wrong death certificate on some child before it reaches the age of puberty.

Take for illustration the now famous "Nubbins" Hoffman child. The boy who was to die before his next Christmas. Would one of you have liked for this tragedy to be placed on your doorstep? It certainly was not the parents' fault, for they had consulted competent physicians, but these physicians failed to attach any importance to the fact that this child constantly was wet from birth.

In this child when renal pathology from the back pressure of the all-time full bladder produced vomiting and a rigid abdomen, it was mistaken for the splinting produced by a ruptured appendix, and his abdomen was hurriedly opened. The bladder filled the entire belly cavity and not until a catheter with great difficulty was passed and 50 ounces of urine was withdrawn was a normal appendix exposed and removed. A diagnosis was then made of a sarcoma of the bladder based on its excessive thickness. To protect the above mistakes this diagnosis was told the parent, thus leading to national publicity.

There was no difficulty in resecting this child's congenitally contracted bladder neck when seen, but this was two years too late. The right kidney was functionless. The bladder wall was filled with diverticula. The left kidney showed a slight amount of dye at the end of 30 minutes, and the left ureter was an overdistended tube because the reservoir (the bladder) was constantly full. (As a side thought here, remember you

cannot continuously make a reservoir out of a ureter, and a kidney pelvis. They are just anatomically not so constructed. One-fourth of a healthy kidney, though, can sustain life.)

Plates II and III show "Nubbins'" bladder and left ureteral pathology. The plates made of the intravenous injections were not of sufficient clarity to be of any worth.

Plates IV and V are those of an 18-month baby girl (S.J.A.). She was referred for recurrent urinary infection. Her residual urine was only three ounces, but in plate IV you can see the damage produced in the upper urinary tract. Eight months after the fibrotic bladder neck was resected with complete relief you can see the improvement in plate V.

Plate No. VI is of a boy (C.H.) of 12, sent in by an osteopath with a complete urine and blood picture. His diagnosis was that of nephrosis, but because the patient's sister reported he was consantly wet both day and night he was cystoscoped. Thirty-two ounces of residual urine was found, along with a contracted bladder neck and hydroureters. The ureter on the right was so large the dye regurgitated back into the bladder as fast as it was injected. Following a transurethral resection his blood non protein nitrogen, which was 115 mgm to each 100 cc of blood, returned to normal and he emptied his bladder without any bed wetting.

Plate VII speaks for itself, a diverticulum in a boy of 14 (L.R.M.), due to bladder neck obstruction, and whose chief complaint was enuresis. I want to say here that I have never seen a diverticulum in a bladder that the patient didn't also have an obstruction of the outlet.

There is no use of going into the most horrible of all congenital defects—bladder extrophy with the accompanying epispadias, which no one can fail to detect, but I want to show the effects of one other bladder entity. I am using the word entity, for I do not know whether the condition is acquired or congenital, but if I had only one guess it would be that of congenital origin. The condition is described and known to you as a ureterocele, and is produced by a pinpoint opening in the bladder mucosa at the ureterovesical junction.

This condition is by far more prevalent in the female and is seldom recognized until adult life. It must of necessity start in childhood, for the changes produced in the upper urinary tract by the back pressure of the urine being forced through this pinpoint opening certainly started many years previous to discovery. The symptoms



are by no means always referable to the bladder. Yet, this is the site of the pathology.

Slide No. VIII is a retrograde pyeloureterogram of a 32-year-old female before the ureterocele was removed by transurethral surgery, and slide No. IX is an intravenous ureteropyelogram several weeks after complete disappearance of pyuria and backache. Diminution in the size of the lower ureter has also taken place. The above complaints extended over many years and unquestionably began in childhood.

Children are very inquisitive individuals and like nothing better than to explore their numerous apertures. Every family physician should keep this constantly in mind and not be caught as many were by the girl of 15 whose slide, No. X, depicts her pathology. She had been seen by many physicians and a diagnosis made in Chicago of tuberculosis of the bladder. Can one imagine in this day and time someone wouldn't have taken a scout picture. Yet, such was not done, and the slide of a bladder stone formed about a hair pin is shown to impress on you the fact that every patient is at least due this consideration.

I will leave the lower urinary tract after showing slide No. XI. This is the pathology produced by neurogenic changes from spina bifida, and no one should ever fail to inspect the spinal column in an X-ray for such defects.

The upper urinary tract has just as many congenital defects, and probably many more than the lower tract. You should be in a position with the aid given by intravenous urography, which all now employ, to **at least suspect** pathological changes in these little ones without the assistance of a competent urologist.

If you remember your embryology, you know that the kidneys start their ascent as pelvic organs between the umbilical arteries, early in foetal life, and reach close to their normal location at the ninth week of foetal existence. It astounds me that so many accomplish this trek without meeting with more grief than they do.

One of the most common calamities that can happen to the kidneys in their upward journey happens on the last lap. The kidneys must receive a blood supply in this ascent through very minute arterioles, with accompanying veins. These you might say are dragged to death as the kidneys rise in the peritoneal abdominal space until the permanent location is reached, and then the remaining artery and veins become permanent. What far too often happens is that some of these blood vessels that are supposed to be dragged apart are not and become aberrant;

meaning a deviation from the normal course. If this aberrant vessel, be it either artery or vein, and usually it's both, should leave the lower pole of the kidney and cross the ureter, thus interfering with the free flow of urine to the bladder, slow but certain deterioration from back pressure is going to take place in the renal pelvis first and later in the kidney itself. It was estimated by Eisendrath many years ago that this congenital defect occurred once in every five persons.

You all know what happens in any hollow viscus when stasis occurs, and so anything, be it an aberrant vessel, congenital stricture of the ureter, ptosis of a kidney, renal calculi, or adhesions, that interfere with a free flow of urine, trouble is going to take place in that kidney. Symptoms produced by such interference varies greatly, but unless we discover these causes early in their incipency and correct them, the future health of this individual is being jeopardized, consequently I want to impress on you the following sentence:

Urine in a state of stasis sends out an invitation to every blood born bacteria wherever its focus, to come and abide with me.

I will forgive any pediatrician for clearing up a bacilluria twice without going into too much of an examination of the child, but for such a condition to persist and a most rigid examination is not instituted to find out the reason, borders on criminal neglect. If such happened to one of your children or grandchildren, you wouldn't think I had expressed myself too strongly, so why not get out of the horse and buggy age and prevent pathology before it is too late.

With this thought in mind, I will run through the following slides on a series of patients ranging from a few months to 28 years.

With few exceptions these patients gave symptoms referable to the urinary tract that should have been investigated much earlier than they were. All had repeated episodes of pyuria. All were under-par physically. Many had fever of undetermined origin, and, as nearly all renal cases have intestinal symptoms to just confuse the family physician, these were no exception. I often think what a great pity it is that intestinal symptoms do manifest themselves so prominently in renal lesions. If such thought were not the case, there would be a great many less surgeon's monograms on women's abdomens.

When one views a slide like No. XII of a 10 month-old little girl (S.R.), a baby who my old



black mammy would have immediately classified as a puny baby, one wonders how many of these puny babies you have on your calling list and are just managing to keep alive by your dietary skill. The pediatrician who referred this baby is one who clears up their pyurias only once and when it occurs a second time he starts to look for causes. Slide No. XIII is of the same case but taken 10 minutes later, showing a complete retention of dye. The contracted area in the upper ureter was not due to an aberrant blood vessel but was due to some intrinsic pathology in the wall of the ureter and so far has responded to ureteral catheter dilations.

Slide No. XIV is a seven-year-old boy. I want you to note the damage in the right kidney produced by a congenital aberrant vessel. It was beyond repair and necessitated the removal of the kidney. The left kidney shows the typical type of contour of the pelvis that is so often seen when the vessel crosses the ureter as it leaves the lower pole of the kidney. Far too often this is a bilateral anomaly.

Slides Nos. XV and XVI are on a 28-year-old man (M.C.B.) with bilateral hydronephrosis, the result of aberrant blood vessels. One can readily see how varying degrees of damage result from this anomaly, depending entirely on the pressure exerted by the position of the vessels.

This 28-year-old man's kidneys could still be saved and were, but this condition should have been discovered many years ago, for there was ample evidence from the patient's past history, he was the possessor of a renal lesion.

I have already told you that every patient is due in the course of any examination at least a scout film. It often pays dividends as the next set of slides will show.

Slide XVII (K.K.) was a 5½-year-old girl. She had run pyuria since babyhood and at no time was ever free of pus. A scout film was made at the Children's Hospital on arrival from a distant city by her pediatrician and you can see a foreign body that lies over the region of the left kidney area. This kidney on complete workup was found totally destroyed, for this shadow was a stone, but slide No. XVIII shows also a most interesting condition that you should always be on the lookout for. This is an intravenous pyelogram with the patient standing and is typical of a ptosis of the right kidney with beginning hydronephrosis. All those kidneys do not produce hydronephrosis, but evidently such occurred in this little girl for the stone shadow on the

left drops considerably from its position in the prone picture.

In this case one has to assume that the patient had bilateral ptosis with renal stasis. The left kidney pelvis became infected by a urea-splitting organism (for such was found) and a stone formed as a result. The left kidney has been removed and a right nephropexy done, with complete relief of her pyuria.

This next and last set of slides has many interesting features, and present an often overlooked cause of pyuria as well as pathology, for which you have to be constantly on the alert in those children raised on a farm.

Slide XIX was a scout plate. The original films I have placed before many young urologists taking their National Board examinations in the past 11 years and have been astounded to find how few used their eyes to read and interpret a picture in its entirety. They can't see the forest for the trees. Seldom did I get an answer other than bilateral renal calculi. The fact that the vertebral column was riddled with a tuberculous infection, which is so self-evident, meant little to them in differentiating between healing calcified psoas abscesses and renal calculi.

Slide No. XX was made at the end of 20 minutes following an intravenous dye, and outlines the normal renal pelvis and ureter on the left, with a dilated right renal pelvis and a very evident tuberculous right ureter. Catheterized specimens from each kidney confirmed these findings and if I remember correctly the bovine organism of tuberculosis was found.

This type of tuberculosis, while fast disappearing, still has to be reckoned with in the drinkers of our unpasteurized milk.

In conclusion I want to say I have touched only on the highlights of some of the causes for destructive pathology in the kidneys that should be recognized and eliminated before it is too late for repairs. I have not mentioned tumors of the kidney, for there is really only one that concerns you—the Wilms Tumor—and the mother as a rule has already made the diagnosis when she consults you, which is even then, in the vast majority of the cases, too late. Neither have I warned you that care should be exercised in the use of any intravenous pyelographic media for it can be fatal, especially in children with hayfever and asthmatic tendencies.

If I have aroused sufficient interest in any of you to carry on I will feel that this long trip has not been in vain.

I thank you.



## A DISCUSSION OF MEANS OF DIVERTING THE URINE\*

Wm. G. COOPER, JR., M. D.

GRADY W. REAGAN, M. D.

Little Rock

The surgeon is faced with the necessity of diverting the urinary stream in three major pathological states; viz: in congenital extrophy of the bladder, in infiltrating carcinoma of this organ where total cystectomy offers the best hope of cure and in inoperable urinary fistulae associated with trauma, specific disease or malignancy. Based upon the necessity of handling such a situation we have reviewed the literature and come to the conclusion that a uretero-colic anastomosis is the procedure of choice. The reasons for reaching this opinion are briefly given with a few references from which we quote most directly.

Extrophy of the bladder is an absence of the anterior vesical wall, leaving exposed the posterior bladder wall, ureteral orifices, trigone and urethra; absence of the vesical and ureteral sphincter, splitting of the external genitalia; wide separation of the pubic bones, absence of the symphysis pubis; incontinence of urine with resultant excoriation of the surrounding skin and a constant stink of urea. The condition is so distressing that the patient afflicted is always eager for relief and the surgeon is willing to attempt it. This was so when a young woman, age 28, with a complete extrophy of the bladder was seen in the Urological Department of the Isaac Folsom Clinic.

The operative plan to aid this condition has been varied. For example, Trendelenburg did a sacro-iliac arthrotomy on one or both sides and placed the patient in an apparatus to approximate the separated pubi and kept him thus for three months. The second stage of the operation consisted of a reduction and suture of the bladder with closure of the abdominal wall.<sup>1</sup> Even this heroic procedure did not result in urinary continence and closed the bladder only occasionally. There is one case of bladder reconstruction wherein sphincteric control was achieved.<sup>2</sup> This procedure was aided by a redundancy of the bladder and required many operations. If it can be repeated in the ordinary case of extrophy it

may be worthwhile attempting. At the present time all of these procedures are relatively difficult and dangerous that one hesitates to recommend them, especially in view of the fact that only once was urinary continence achieved.

Transplantation of the ureters to the skin is useless as it does not remove the malodor, etc. Its only value is in emergencies to preserve a kidney. Transplantation of the ureters into the sigmoid seems the most workable solution so far advanced. It was first tried by Simmon in the early 1800's. Since then many urologists have contributed to the operation. The procedure has the advantage of diverting the urine to a pre-formed reservoir with a functioning sphincter. Control is usually obtained. This performs the major function of removing the foul odor responsible for the complete ostracation of these patients and it gives them fairly adequate safety from soiling. The result is good provided the patient survives the operation and provided renal damage and infection does not occur subsequently.

There is considerable variation of opinion in the literature concerning the time at which the uretero-colic anastomosis should be done in children. An individual surgeon can answer that question for himself by stating that he does it at a time when the ureters are large enough for him to handle easily. We feel that it should be done at a comparatively early age, perhaps at one, two, or three months after birth when the infant has regained its birth weight and seems to be thriving.<sup>3</sup> This reasoning is based upon the 50 per cent mortality obtained in these little patients before the age of five or six years and 65 per cent mortality rate which obtain before the age of 20 years.<sup>4</sup> If a surgeon loses half of his cases he has still done as well as nature and everything from there on is pure gain. Certainly one should not wait to operate beyond the age of social consciousness, which would then place the limit at around four years. The procedure on a child is technically somewhat more difficult but still not too formidable.

There is beginning to become apparent in the urological literature a tendency toward the use of total cystectomy in cases of infiltrating bladder carcinoma where the patient's condition permits and where less drastic means do not offer a chance of cure or have already failed. Marshall and Gardner after dealing with this type of case review uretero-colic anastomoses from the technical aspect.<sup>5</sup> They state that there is no large series of cases showing any method of

\*From the Urological and Surgical Services of the University Hospital and University of Arkansas School of Medicine.



anastomoses which has produced results superior to those following the Coffey I method. The positive advantages of the Coffey I method are its simplicity and directness. All steps are done under full visualization. Blind procedures and special instruments are not necessary. Manipulation and contamination can be reduced to a minimum. Foreign bodies are eliminated. The wide area of contact afforded the ureter and bowel by the long submucosal trough provides absolute fixation and good collateral circulation between the two organs. Absence of angulation and ureteral tension can be readily assured by the surgeon at the operating table and the operative site itself can be further immobilized by tacking a flap of parietal peritoneum over the anastomosis. Tension plus insufficient blood supply are the chief errors underlying most failures. Abscess formation is due not to the inevitable slight contamination which the peritoneum readily overcomes, but rather to massive sloughing, excessive tension, poor blood supply, or an open fistulous tract communicating with the peritoneal cavity which continually feeds infectious material. We agree with their reasoning as quoted above. They had an absolute postoperative mortality rate of 10 per cent. From following their case analyses one can agree that extraneous causes were responsible for about 5 per cent. This death rate compares favorably with any other large series using a different method of transplantation especially as most anastomoses were done on cancer patients who are notoriously poor risks. Some of the Canadian surgeons, among them LeMercier,<sup>6</sup> also use what is essentially this method, doing both transplantations at the same time. They have recently had a large number (over 50) of successful cases with only one failure. Thus the Coffey I method seems the most rational one from a urological point of view. Attempts to use an isolated portion of the bowel as a bladder, thus preserving the urinary sphincter, are long drawn out but may soon be available.

Uretero-colic anastomosis is also in accordance with the general laws of gastro-intestinal surgery. In making a gut anastomosis one uses essentially a two-layer closure. The internal layer of absorbable suture unites the subserosa and the muscular coat to its fellow for hemastasis and strength. The second layer joins serosa to serosa for rapid healing. A procedure done in this manner with preservation of blood supply and avoidance of angulation and tension is almost

sure to heal. The Coffey I method can fit this scheme.

In the foreign literature, notably that from India, one can find a large series of uretero-colic anastomoses done for urinary fistulae following the trauma of childbirth. This indication is fortunately rather rare in American experience. These men, after trying all methods, finally got their best results with essentially the same method as herein advocated.<sup>8</sup>

Briefly the essentials of the Coffey I uretero-colic anastomosis are as follows. A one-stage procedure is preferred. Through an adequate incision (mid-line or transverse) the right ureter is mobilized, cut and tied as low as possible. It is fitted against the sigmoid so that the ureter lies freely against the bowel without tension. As the ureter stretches on even gentle manipulation allowance should be made for this. An incision is made in one of the taenia of the sigmoid through the serosa and to the muscularis. This incision should be approximately 4 to 6 centimeters long. A small flap of serosa can be raised on each side of the incision by dissection with a small "peanut" sponge. A hole is stabbed into the lumen of the bowel at the distal end of the trough. A suture is taken from the end of the ureter to the side of the opening in the bowel. The ureter is opened by a longitudinal split and drawn into the bowel by tightening the suture. Here one has an absorbable suture in a contaminated area. The serosa of the bowel is gently closed over the ureter without tension using non-absorbable, interrupted silk sutures. No stitch is taken in the ureter itself. This makes a two-layer closure with no communication between the layers, and no non-absorbable sutures entering contaminated spaces. The anastomosis is further reinforced by tacking conveniently adjacent peritoneum over the suture line. The rent in the posterior peritoneum where the ureter was removed is lightly closed and a similar procedure affected with the left ureter.

Pre-operative administration of succinyl sulfathiazole is used to reduce the bacteria content of the bowel. Penicillin intermuscularly might help sterilize the urinary tract if desired. Post-operatively the succinyl sulfathiazole is continued; a catheter is kept in the rectum for at least three days and the usual details of treatment are followed. The procedure is not a complicated one but is easily within the field of the urologic or general surgeon. We feel that it is the operation of choice for dealing with extrophy of the bladder and perhaps it, plus a total cystectomy, may



be the treatment of election in cases of malignancies of the bladder when the patient can stand this procedure.

Case report: G. P. unit No. 55657, white female, age 28, was first seen in the Urologic Clinic at the University of Arkansas School of Medicine and Hospital on 7-1-45. The patient stated she had a congenital extrophy of the bladder. Her parents had refused to allow her to have it operated upon because they thought it would be interfering with an act of God, and because of the reported mortality. Now that the patient was of age she was allowed to make up her own mind. Because of her social excommunication she decided "to chance it." Physical examination was not remarkable except that she had a complete extrophy of the bladder fitting the description above. Laboratory data was within normal limits. Her NPN was 33.5 mgm per cent. Intravenous pyelograms showed the left kidney, pelvis and left ureter to be normal in appearance. There was some evidence of mild right hydronephrosis and hydroureter. It was incidentally noted that a four-inch gap existed between the pubic bones. A two-stage transplantation of the ureter to the colon was done. At operation the internal genitalia were found normal. The post-operative course was not remarkable. The bladder was removed later and a skin graft applied to the renuded area. The external genitalia were brought into a practically normal state by plastic operations. Patient was discharged in good condition.

She returned to the clinic on several occasions, the last time 9-5-46. She then had no gastrointestinal nor abdominal complaints. She said she usually passed urine by rectum every two to four hours but urgency was marked. She was able to sleep through the night without soiling. She picked cotton five days a week and clerked in a store the other two days. She also volunteered the information that she was doing everything she was old enough to do. This matter was not gone into any further. On examination her operative scars were well healed. The bladder area was satisfactorily covered. The external genitalia were in good functioning order. Intravenous pyelograms showed a better dye excretion a year after operation than at the time of operation. The kidney pelvises were much better filled and the outlines were more visible. There was a hydronephrosis on the right side in each instance but it appeared not to have increased any in the year following operation. The outline of the left kidney pelvis was excellent at each

examination. There was no evidence of destruction of kidney tissue by infection. Apparently there is some form of obstruction at the uretero-pelvic junction on the right side. This appears to be a congenital affair although it may be an aberrant vessel.

In the relatively short follow-up this patient has had a satisfactory result and is extremely pleased with the change in her condition. It is of course impossible to predict the future course of her urinary tract. The patient's ability to enjoy for the first time the normal social activities available to most girls was worth the procedure.

Summary: The various procedures to divert the urinary stream are discussed and reasons given why the uretero-colic transplant by the Coffey I method is considered best. A case in which this procedure was done on a young lady with extrophy of the bladder is given with a year's follow-up. The conclusion and recommendation is reached that this procedure be made available to patients with extrophy of the bladder at a comparatively early age and (with total cystectomy) to patients with infiltrating carcinoma of the bladder if their condition permits.

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## ROUND-TABLE OF THE COMMITTEE ON MATERNAL AND CHILD WELFARE

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The surgeon is always confronted with the differential diagnosis of an acute surgical abdomen. Whenever this is aggravated by pregnancy, then the difficulty of diagnosis becomes greater. The obstetrician is always faced with the possibility of appendicitis during pregnancy if the appendix has not been removed previously. Women suffer so many various pains in the abdomen during pregnancy due to the enlargement of the uterus and the pressure from the ever growing uterus. Therefore, the obstetrician must ever keep in mind that his patient may and can develop appendicitis during her gestation period. He must also, keep in mind that appendicitis during pregnancy is a far more serious condition than in the nonpregnant woman. It is with this in mind that we bring the following case history taken from "Maternal Mortality Reports" to you:

### Case No. 11

The patient was a 26-year-old white primigravida who was admitted to the hospital on April 18 complaining of abdominal pain. The family and personal history was noncontributory. Her last menstrual period was on August 3 and the estimated date of confinement on May 10. The prenatal course was essentially normal until April 18 when she complained of rather severe abdominal pain.

On admission to the hospital the temperature was 99.8° F., the pulse rate 100 per minute, and the patient within a few weeks of term. The abdomen seemed rather more distended than was normal for a pregnancy of this duration. The blood pressure was 116 mm. systolic, 70 mm. diastolic, the hemoglobin 86 per cent, the urine showed a trace of albumin, the fetal heart was heard in the left lower quadrant, and there was no external bleeding.

In an effort to determine the exact cause of the abdominal pain, several possibilities presented themselves as the most likely in view of the fact that the patient definitely was not in labor. A premature separation of a normally implanted placenta was considered, only to be ruled out on further examination; the patient's symptoms were too severe to be due to a simple hydramnios, and some acute intra-abdominal

condition appeared to be a likely cause for her illness.

It was decided to keep the patient under observation a little while, and during the next few hours she began to have some uterine contractions. Labor continued and after a prolonged labor of almost 36 hours, delivery of a seven-pound living infant occurred on April 19 at 9:15 p. m. There was no abnormal bleeding following this spontaneous delivery but there was considerable distension which persisted in spite of treatment. The temperature remained elevated but did not go beyond 101.5°. Intravenous glucose, physostigmine and Wangensteen drainage failed to relieve the distension and surgical consultation was sought. The consultant found evidence of fluid in both flanks and stated that it was his impression that the patient was suffering from "gastric atony, pyloric spasm and possibly some intra-abdominal condition." He recommended supportive therapy and attempts to reduce the distension by gastric drainage. On April 30 a gynecological consultation was obtained and a diagnosis of intestinal obstruction was made at that time. Under palliative treatment the patient showed no improvement. The temperature and pulse rate continued to be elevated and the distension was still marked in spite of sulfa therapy, blood transfusions, gastric and duodenal drainage. About this time the perineum broke down resulting in a rectovaginal fistula. On May 11 an X-ray examination gave evidence of a mass in the right side of the abdomen displacing the intestines. Following this, pelvis examination suggested an intra-abdominal abscess formation. The patient complained of several chills about this time. On May 27 an exploratory laparotomy was performed and through a midline incision a mass was entered which contained pus, fecal material and undigested food particles. This opening was packed with iodoform gauze and the abdominal incision drained. The patient had a number of chills following this operation and her condition did not seem to improve much. The temperature chart became spiking in character and she complained of severe abdominal pain. Many blood transfusions, much intravenous glucose, and multiple vitamins in large quantity were given. Her condition grew steadily worse in spite of occasional temporary respites, and on June 13 she rather suddenly developed cardiac dilatation and vasomotor collapse and died, almost two months after admission to the hospital with a complaint of abdominal pain.

Discussion: This fatality was the result of



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 Waldrop, J. G. .... Nashville

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Barnett, J. C. .... Heber Springs  
 \*Bone, O. L. .... Newark  
 Brown, H. H. .... Blackfoot, Idaho  
 Calaway, R. L. .... Batesville  
 Calaway, W. H. .... Batesville  
 Chambers, S. W. .... Mountain Home  
 \*Churchill, C. A. .... Batesville  
 Copp, Noel ..... Calico Rock  
 \*Craig, M. S. .... Batesville  
 Evans, L. T. .... Batesville  
 Gray, E. M. .... Mountain Home  
 Gray, W. Paul ..... Batesville  
 Harris, C. L. .... Melbourne  
 Headstream, J. W. .... Batesville  
 \*Hinkle, C. G. .... Batesville  
 Hooper, Rector ..... Batesville  
 \*Jeffery, Paul H. .... Bethesda  
 \*Johnston, O. J. T. .... Batesville  
 Jones, W. A. .... Los Angeles, Calif.  
 Junkin, Ruth ..... Batesville  
 \*Ketz, W. J. .... Batesville  
 Landers, Gardner ..... Roanoke, Va.  
 Matthews, J. T. .... Heber Springs  
 McAdams, V. D. .... Cord  
 \*Monfort, J. J. .... Batesville  
 Robertson, S. N. .... Sulphur Rock  
 Roe, C. E. .... Viola  
 Saltzman, B. N. .... Mountain Home  
 Weathers, J. L. .... Salem  
 Wood, O. S. .... Salem  
 \*Wyatt, F. Q. .... Batesville

**JACKSON COUNTY**

Best, A. L. .... Newport  
 Elton, A. M. .... Newport  
 Gray, C. R. .... Newport  
 Harris, M. L. .... Newport  
 Heinemann, Sol ..... Newport  
 Ivy, J. B. .... Tuckerman  
 Jackson, J. F. .... Newport  
 Jamison, O. A. .... Tuckerman  
 +Justus, Shelby ..... Swifton  
 Kimberlin, K. K. .... Tuckerman  
 Norris, R. O. .... Tuckerman  
 Owen, Henry M. .... Little Rock  
 Walker, H. O. .... Newport  
 Williams, Thos. E. .... Newport

**JEFFERSON COUNTY**

Adams, Carl H. .... Pine Bluff  
 Anderson, C. W. .... Pine Bluff  
 \*Bruce, W. H. .... Pine Bluff  
 Capel, C. B. .... Pine Bluff  
 \*Capel, H. T. .... Pine Bluff  
 Carruthers, C. K. .... Pine Bluff  
 \*Causey, H. A. .... Pine Bluff  
 \*Clark, O. W. .... Pine Bluff  
 \*Cunningham, T. J. .... Pine Bluff  
 Cunningham, T. J., Jr. .... Pine Bluff  
 \*Dickins, R. D. .... Pine Bluff  
 Fergusson, J. P. .... Pine Bluff  
 Fowler, Arthur ..... Humphrey  
 Fowler, Arthur, Jr. .... Pine Bluff  
 Fowler, H. D. .... Humphrey  
 +Garratt, A. A. .... Pine Bluff  
 \*Hames, Fred ..... Pine Bluff  
 Hart, James C., Jr. .... Pine Bluff

Higinbotham, C. J. .... Pine Bluff  
 \*Hundley, Louis K. .... Pine Bluff  
 Jenkins, J. S. .... Pine Bluff  
 \*Lowe, W. T. .... Pine Bluff  
 \*Luck, B. D., Jr. .... Pine Bluff  
 \*Maynard, R. E. .... Pine Bluff  
 \*McMullen, E. C. .... Pine Bluff  
 Monroe, S. C. .... Pine Bluff  
 Morris, H. J. .... Pine Bluff  
 Palmer, J. T. .... Pine Bluff  
 \*Payne, Virgil ..... Pine Bluff  
 Reed, Enoch F. .... Pine Bluff  
 \*Reid, Chas. W. .... Pine Bluff  
 Russell, A. R. .... Pine Bluff  
 Shelton, M. A. .... Wabbaseka  
 Simmons, Walter H. .... Pine Bluff  
 \*Spillyards, J. S. .... Pine Bluff  
 \*Talbot, George ..... Pine Bluff  
 \*Walker, John K. .... Pine Bluff  
 +Woods, R. P. .... Altheimer

**JOHNSON COUNTY**

Floyd, John ..... Oark  
 Graves, S. M. .... Clarksville  
 \*Hardgrave, Geo. L. .... Clarksville  
 \*Hunt, Earle H. .... Clarksville  
 \*Kolb, J. M. .... Clarksville  
 Nicholas, J. P. .... Hagarville  
 Scarborough, Wm. R. .... Clarksville  
 \*Shrigley, Guy P. .... Clarksville  
 \*Siegel, G. R. .... Clarksville

**LAFAYETTE COUNTY**

Armstrong, R. L. .... Lewisville  
 Baker, F. E. .... Stamps  
 Harrel, John A. .... USN  
 Keith, A. W. .... Stamps  
 McKnight, J. F. .... Bradley

**LAWRENCE COUNTY**

Ball, C. C. .... Ravenden  
 Blaine, Mitchell ..... Mammoth Spring  
 Brown, W. W. .... Hardy  
 Cruse, E. J. .... Black Rock  
 Faircloth, Robert S. .... Walnut Ridge  
 Guthrie, I. C. .... Smithville  
 Hatcher, W. W. .... Imboden  
 +Henderson, A. G. .... Imboden  
 +Hull, H. B. .... Mammoth Spring  
 +Johnson, T. Z. .... Walnut Ridge  
 Kendall, W. S. .... Cave City  
 Land, J. C. .... Walnut Ridge  
 Tibbels, Chas. D. .... Black Rock  
 Townsend, C. C. .... Walnut Ridge

**LEE COUNTY**

Bogart, H. D. .... Marianna  
 Chaffin, C. W. .... Moro  
 +Crawford, W. S. .... Marianna  
 Dozier, Floyd ..... Marianna  
 Hammer, J. H. .... Aubrey  
 Hays, Wm. C., Jr. .... Marianna  
 McClendon, Mac ..... Marianna

**LINCOLN COUNTY**

Bailey, B. L. .... Star City  
 \*Dixon, C. W. .... Gould  
 \*Gardner, B. M. .... Star City  
 Kersh, N. B. .... Star City  
 McEntire, Henry ..... Star City  
 Wood, G. C. .... Grady

**LITTLE RIVER COUNTY**

Davis, Elmer ..... Foreman  
 \*Peacock, Norman ..... Ashdown  
 Shelton, J. G., Jr. .... Ashdown

**LOGAN COUNTY**

Dickey, A. B. .... State Sanatorium  
 Hederick, A. R. .... Booneville  
 Hederick, Rogers ..... Booneville  
 Henry, C. A. .... State Sanatorium  
 Jewell, I. H. .... Paris  
 McConnell, S. P. .... Booneville  
 Nowlin, R. R. .... State Sanatorium  
 Riley, J. D. .... State Sanatorium  
 Slaughter, Pauline K. .... State Sanatorium  
 Smith, Chas. McD. .... Paris  
 Smith, James T. .... Paris  
 Smith, John F. .... Paris  
 +Wear, Wm. Meyers ..... Paris

**LONOKE COUNTY**

Beatty, S. S. .... England  
 Brewer, J. F. .... Kerrs  
 Kelly, R. M. .... Lonoke  
 Southall, S. A. .... Lonoke  
 Ward, O. D. .... England  
 Watson, Asa C. .... Benton  
 Wells, J. B. .... Little Rock  
 +Whaley, E. S. .... Carlisle

**MILLER COUNTY**

Baskett, Roy F. .... Texarkana  
 Burnett, J. W. .... Texarkana  
 Collom, Allan ..... Texarkana  
 \*Daniel, N. B. .... Fort Worth  
 Frank, C. H. .... Texarkana  
 Fuller, T. E. .... Texarkana  
 Good, L. P. .... Texarkana  
 Guthrie, James ..... Texarkana  
 Harrell, W. B. .... Texarkana



Harrison, R. K.	Texarkana	Rushing, J. L.	Chidester	Clark, Wm. A.	Little Rock
*Hibbitts, Wm.	Texarkana	Schirmer, Roy E.	Camden	Cohen, Louis A.	Little Rock
Hunt, Preston	Texarkana	Thompson, H. F.	Bearden	*Compton, J. N.	Little Rock
Jones, John W.	Texarkana	Thompson, S. B.	Baltimore, Md.	Coon, A. B.	Little Rock
Kemp, K. H.	Texarkana	PHILLIPS COUNTY			Little Rock
*Kirkpatrick, R. R.	Texarkana	Broach, R. F.	West Helena	*Cook, R. C.	Little Rock
Kittrell, J. B.	Texarkana	Butts, J. W.	Helena	*Cooper, Wm. G.	Little Rock
*Kittrell, T. F.	Texarkana	Capes, B.	West Helena	*Cope, E. P.	Little Rock
*Kosminsky, L. J.	Texarkana	Chrestman, R. L.	Helena	Corn, F. A.	Little Rock
Lanier, L. H.	Texarkana	Connolly, W. B.	Helena	*Cosgrove, K. W.	Little Rock
Little, A. A.	Texarkana	Cox, A. E.	Helena	Craig, M. S. Jr.	Rochester, Minn.
Mann, Albert H.	Texarkana	*Cox, A. W.	Helena	*Crawford, J. B.	Little Rock
Middleton, B. C.	Texarkana	Ellis, J. B., Sr.	Albuquerque, N. M.	Crawford, S. R.	Hazen
*Murry, H. E.	Texarkana	Ellis, W. A.	Helena	Crawley, Eugene H.	Little Rock
Nisbett, James F.	Texarkana	Fink, M.	Helena	Cull, S. T. W.	Little Rock
Parson, G. W.	Texarkana	Hosey, N. R.	Marvell	*Cullen, P. T.	Little Rock
Pickett, R. W.	Texarkana	Jones, L. B.	Helena	*Cummins, Bryce	Little Rock
Priest, Perry	Texarkana	Kultgen, Edward	Elaine	Curtis, A. C.	Little Rock
Roberts, A. W.	Texarkana	Nicholls, J. W.	Helena	Darby, Wm. J.	Nashville, Tenn.
*Smith, W. D.	Texarkana	Norton, E. F.	Marvell	Darnall, R. F.	Little Rock
Spinka, Frances	Texarkana	Oldham, H. B.	Marvell	Davis, J. C.	Little Rock
Stuart, Chas. C.	Texarkana	Orr, W. R.	Helena	*Day, E. O.	Little Rock
*Tate, J. B.	Texarkana	Rightor, H. H.	Helena	Dean, G. O.	Little Rock
Teasley, Gerald H.	Texarkana	Russwurm, W. C.	Helena	Dibrell, J. R.	Little Rock
Williams, J. F.	Texarkana	Storm, Geo. R.	Helena	Dildy, Hal	Little Rock
Witt, Mary E.	Texarkana	Terry, John B.	Helena	Dishongh, Elizabeth F.	Little Rock
MADISON COUNTY		POLK COUNTY			Little Rock
Martin, C. J.	Hindsville	Campbell, C. A.	Mena	*Donaldson, J. K.	Little Rock
Youngblood, Fred	Huntsville	Lee, F. A.	Vandervoort	*Dykstra, D. W.	Little Rock
MISSISSIPPI COUNTY		Miers, E. M.	Mena	*Easley, E. J.	Little Rock
Atkinson, G. S.	Blytheville	Norwood, Frank A.	Mena	*Eubanks, R. M.	Little Rock
Beasley, J. E.	Blytheville	*Redman, Pierre	Mena	Farris, Guy R.	Little Rock
Brownson, J. F.	Leachville	POPE-YELL COUNTY			Little Rock
Campbell, J. H.	Marvell	Berryman, L. D.	Russellville	Faust, W. H.	North Little Rock
Elliot, John	Blytheville	Cale, W. C.	Atkins	Ferguson, R. L.	Vermillion, S. D.
Ellis, N. B.	Wilson	Gardner, Ellis	Russellville	Freedman, Theo	Little Rock
Fairley, Eldon	Wilson	Gardner, L.	Russellville	*Fulmer, D. W.	Little Rock
Harwell, C. M.	Osceola	Gilliam, A. D.	Belleville	*Fulmer, P. M.	Little Rock
Hassell, L. L.	Conway	Grace, Kent	Belleville	Fulmer, S. C.	Little Rock
Hollingsworth, G. F.	Dyess	Henry, J. A.	Russellville	Fulton, Wm. L.	Little Rock
Hubener, L. L.	Blytheville	Hood, Robert	Russellville	Gann, Dewell	Little Rock
Hubener, Louis F.	Blytheville	Hornsby, W. H.	Midland	*Gay, E. C.	Little Rock
+Hudson, T. F.	Luxora	Hoyt, Jonathan	Waldron	Gordon, Vida	Little Rock
Husband, F. L.	Blytheville	Hunt, E. C.	Ola	*Gray, A. F.	Little Rock
Johnson, I. R.	Blytheville	Linton, A. C.	Hector	Gray, Edwin F.	Little Rock
Johnson, R. L.	Blytheville	Millard, Roy I.	Russellville	Gray, H. F.	Little Rock
Martin, J. A.	Leachville	Mobley, Max	Russellville	*Gray, Oscar	Little Rock
Massey, L. D.	Osceola	Montgomery, H. L.	Gravelly	Gray, John T.	Little Rock
Polk, J. T.	Keiser	Moore, J. H.	Delaware	Grayson, W. B.	Little Rock
Rodman, T. N.	Leachville	Smith, R. L.	Russellville	Greutter, J. E.	Little Rock
Saliba, J. A.	Blytheville	Stanford, J. M.	Russellville	*Hardeman, D. R.	Little Rock
Sheddian, W. J.	Osceola	Tate, A. B.	Russellville	Harris, F. W.	Little Rock
Sims, H. C.	Blytheville	Teeter, Brooks R.	Russellville	Harris, Robert P.	Sarasota, Fla.
Skaller, M. L.	Blytheville	Underwood, E. O.	Waveland	Hayes, C. K.	Little Rock
+Stevens, C. C.	Blytheville	Young, W. O.	Russellville	*Hayes, J. D.	Little Rock
Tidwell, J. L.	Blytheville	PRAIRIE COUNTY			Little Rock
Turrentine, P. W.	Osceola	Adams, Edward	DeValls Bluff	*Hayes, J. H.	Little Rock
Utley, F. E.	Blytheville	Calley, J. H.	USA	*Henry, C. R.	Little Rock
Walls, J. M.	Blytheville	Crockett, W. H.	Benton	Henry, J. F., Jr.	Little Rock
Webb, Floyd	Blytheville	Gilliam, J. C.	Des Arc	Henry, R. L. Jr.	Kansas City, Mo.
Webb, J. J.	Blytheville	Matthews, Travis	Hazen	Herron, John T.	Little Rock
Wilson, C. E.	Blytheville	Parker, W. M.	DeValls Bluff	*Higgins, H. A.	Little Rock
MONROE COUNTY		*Porter, T. G.	Hazen	Hill, Harlan H.	Little Rock
*Boswell, W. L.	Clarendon	Shumann, G. M.	Des Arc	*Hollenberg, H. G.	Little Rock
*Dalton, M. L.	Brinkley	PULASKI COUNTY			Little Rock
+Martin, W. H.	Holly Grove	*Aday, J. Leo	Little Rock	Hollis, N. T.	Little Rock
Jones, Erner	Brinkley	*Allen, H. R.	Little Rock	Holmes, G. M.	Little Rock
*McKnight, C. H.	Brinkley	Almaden, Phillip J.	Little Rock	Holmes, H. C.	Little Rock
*McKnight, E. D.	Brinkley	Anderson, C. C.	Little Rock	Holt, L. G.	Little Rock
Mohler, D. A.	Brinkley	*Anderson, P. R.	Little Rock	Hoover, P. W.	Little Rock
MONTGOMERY COUNTY		*Arkebauer, C. A.	Little Rock	Hundley, John M.	Memphis, Tenn.
+Freeman, W. D.	Mt. Ida	*Armstrong, H. M.	Little Rock	Hundling, H. W.	Little Rock
McLean, J. H.	Caddo Gap	Askew, J. B.	USPHS	*Hyatt, D. T.	Little Rock
Watkins, G. E.	Mt. Ida	Atkinson, Shelby	North Little Rock	Jackson, Geo. W.	Little Rock
NEVADA COUNTY		Ault, Chas. C.	Little Rock	Jackson, Robert H.	Little Rock
Arnold, C. P.	Prescott	*Aulry, D. H.	Little Rock	Jernigan, James P.	Little Rock
Buchanan, A. S.	Prescott	*Autry, P. G.	Little Rock	*Johnson, Glenn H.	Little Rock
Cox, J. E.	Rosston	Baker, Clark M.	Kennett, Mo.	Johnston, T. G.	USA
Hairston, G. G.	Prescott	Banks, Jeff	Little Rock	*Jones, H. Fay H.	Little Rock
Harrell, L. J.	Prescott	*Barrier, L. F.	Little Rock	Jones, J. E.	Little Rock
Hesterly, J. B.	Prescott	Beck, R. W.	Little Rock	Jones, Robert D.	Little Rock
Hirst, O. G.	Prescott	*Bennett, B. A.	Little Rock	Junkin, S. P.	Little Rock
McDaniel, T. W.	Boughton	*Bizzell, Ross	Little Rock	Kennedy, Howard J.	USA
Pool, W. B. H.	Rosston	Black, M. W.	Little Rock	Kilbury, M. J.	Little Rock
Rouse, B. H.	Prescott	Blakely, R. M.	Little Rock	Kilbury, M. J., Jr.	Little Rock
OUACHITA COUNTY		Boyle, R. M.	USA	Kirby, Jesse M.	Little Rock
*Byrd, J. E.	Camden	*Briggs, B. P.	Little Rock	Kolb, A. C.	Little Rock
*Dalton, Perry	Camden	Brizzolara, A. J.	Little Rock	Kolb, Agnes C.	Little Rock
*Early, C. S.	Camden	*Brooks, C. M.	Little Rock	Kolb, B. T.	Little Rock
Ellis, C. R.	Fordeyce	Brown, Martha M.	Little Rock	*Kory, R. C.	Little Rock
Glasscock, R. E.	Bearden	*Brown, T. Duel	Little Rock	Kozberg, Oscar	Little Rock
Hearnberger, Henry	Stephens	Burgess, I. E.	Little Rock	Kumpuris, F. G.	Little Rock
*Jameson, J. B.	Camden	Burns, W. M.	Little Rock	*Lamb, W. A.	Little Rock
*Kennerly, R. C.	Camden	Byrd, L. M.	Little Rock	Lamon, J. E.	Little Rock
*Magness, W. C.	Camden	Calcote, R. J.	Little Rock	*Langston, W. C.	Little Rock
*McAllister, J. P.	Camden	Caldwell, Robert	Little Rock	*Law, R. A.	Little Rock
*McGill, S. D.	Camden	Carruthers, F. W.	Little Rock	*Lawson, Mason	Little Rock
Meek, Tom J.	Camden	Cavener, Jesse L.	Little Rock	Levy, J. S.	Little Rock
*Miller, John H.	Camden	Cazort, Alan G.	Little Rock	Lewis, G. V.	Little Rock
*Partee, N. G.	Camden	Champion, J. P.	Little Rock	*Longstreth, Alvin E.	Little Rock
*Powell, B. V.	Camden	Cheairs, D. T.	Little Rock	Lyons, V. E.	North Little Rock
*Rhine, T. E.	Thornton	Chestnutt, C. R.	Little Rock	*Mahoney, Paul L.	Little Rock
*Rhinehart, J. S.	Camden	Chestnutt, C. R., Jr.	Little Rock	Mazzanti, Vincent	Topeka, Kan.
*Robins, R. B.	Camden	*Choate, H. L.	Little Rock	*McCaskill, M. E.	Little Rock
*Robins, R. R.	Camden	*Church, B. L.	North Little Rock	McCaskill, M. R.	Little Rock
		Clark, A. C.	Little Rock	McClain, M. D.	Little Rock
				*McLochlin, R. E.	Little Rock
				*McMillan, Lamar	Little Rock
				McRae, W. M.	Little Rock



*Means, Ben D.	Little Rock
Melson, O. C.	Little Rock
*Morgan, Vern E.	Little Rock
*Murphey, Pat	Little Rock
Newbill, James	Little Rock
*Newman, W. V.	Little Rock
Nixon, Ewing	Little Rock
Nowlin, W. A.	Roland
*Oates, Chas. E.	North Little Rock
Oates, Gordon P.	Little Rock
*Parsons, J. E.	Little Rock
*Parsons, W. R.	Little Rock
*Phillips, Bert L.	Little Rock
Phillips, Sam	Little Rock
Phipps, W. E.	North Little Rock
Prickett, M. D.	Little Rock
Raley, B. V.	St. Louis, Mo.
*Raney, T. J.	Little Rock
*Reagan, G. W.	Little Rock
Reagan, G. W., Jr.	Little Rock
Reagan, L. D.	Little Rock
*Reaves, B. J.	Little Rock
*Reed, C. C., Jr.	Little Rock
Reed, E. C., Jr.	Little Rock
*Rhinehart, B. A.	Little Rock
*Rhinehart, D. A.	Little Rock
*Rhyne, J. T.	Wilmington, N. C.
*Richardson, W. R.	Little Rock
Riegler, N. W., Sr.	Little Rock
Riegler, N. W., Jr.	Little Rock
Ritchie, E. J.	North Little Rock
*Roberts, J. N.	Little Rock
*Robinson, B. L.	Chicago, Ill.
*Rodgers, Clyde D.	Little Rock
*Rosenbaum, Carl A.	Little Rock
Ross, Robert W.	St. Louis, Mo.
Ross, T. T.	Little Rock
Rothert, Frances C.	Little Rock
*Rowland, R. E.	Little Rock
Rowen, R. E.	Little Rock
Ruff, Horace E.	Little Rock
*Sadler, W. L.	Little Rock
Samuel, John	Little Rock
*Sanderlin, J. H.	Little Rock
Savin, Jessie E.	Little Rock
†Savin, T. L.	Little Rock
Saxon, R. L.	Little Rock
Scarlett, W. P.	Little Rock
Scarborough, J. I.	Little Rock
Schwander, Howard	Little Rock
*Schwarz, W. J.	Little Rock
Sessoms, W. D.	Little Rock
*Shipp, A. C.	Little Rock
*Shipp, Harvey	Little Rock
Shuffield, H. Elvin	Little Rock
Shuffield, J. F.	Little Rock
*Shukers, C. F.	Little Rock
Simpson, N. Henry, Jr.	Little Rock
Smith, H. H.	North Little Rock
*Smith, James L.	Little Rock
*Smith, John M.	Little Rock
*Smith, John W.	Little Rock
Smith, R. T.	Little Rock
Smith, W. Myers	Little Rock
*Snodgrass, Wm. A.	Little Rock
*Sparks, A. R.	Little Rock
*Spitzberg, Irving J.	Little Rock
Stathakis, John	North Little Rock
*Stern, Howard S.	Little Rock
Steinkamp, G. R.	Little Rock
Stewart, Bill D.	Little Rock
Stover, A. R.	Holbrook, Ariz.
*Strauss, A. W., Sr.	Little Rock
Strauss, A. W., Jr.	Little Rock
*Summers, J. A.	Little Rock
Switzer, D. M.	North Little Rock
Switzer, D. M., Jr.	Little Rock
Thomas, P. E.	Little Rock
*Thompson, E. I.	Little Rock
Thompson, G. D.	Little Rock
Thompson, R. F.	Little Rock
Turnbow, R. L.	Little Rock
Turner, Roy J.	Clarendon
*Wallis, Charles	Little Rock
*Warden, J. R.	Little Rock
Washburn, A. M.	Little Rock
Watkins, John G., Sr.	Little Rock
Watkins, John G., Jr.	Little Rock
Warford, Walton R.	Little Rock
Wassell, J. R.	Little Rock
Watson, Asa C., Jr.	Hartford, Conn.
Watson, C. F.	Little Rock
*Watson, C. Robert	Little Rock
Wayman, A. K.	Little Rock
*Wayne, J. R.	Little Rock
Webb, Lewis A.	Little Rock
*Webb, V. T.	Little Rock
Weny, N. F.	Little Rock
Weese, W. H.	Little Rock
*Wickard, C. P.	Little Rock

## RANDOLPH COUNTY

Baltz, M. A.	Pocahontas
Brown, J. W.	Pocahontas
†Finney, C.	Maynard
Hamil, W. E.	Pocahontas
Loftis, J. R., Sr.	Pocahontas

Loftis, J. R., Jr.	Pocahontas
Loftis, W. O.	Pocahontas
Ryburn, J. W.	Pocahontas
Smith, J. E.	Reyno
Smith, R. O.	Biggers

## ST. FRANCIS COUNTY

Bogart, C. N.	Forrest City
Burch, W. D.	Hughes
Bradley, Ben H.	Forrest City
Chaffin, E. J.	Hughes
Cogburn, H. N.	Forrest City
Crowley, C. E.	Forrest City
*Davidson, J. S.	Forrest City
Gray, Henry T.	Hughes
McClendon, H. L.	Palestine
McPhail, Geo. T.	Forrest City
Parker, Wm. H.	Forrest City
Roy, J. M.	Forrest City
Rush, J. O.	Forrest City

## SALINE COUNTY

Ashby, John	Benton
Blakely, M. M.	Benton
Buffington, T. E.	Benton
Jones, C. W.	Benton
Setzler, Robert K.	Bauxite
Walton, Chas. R.	USA

## SEARCY COUNTY

Cotton, J. O.	Leslie
Daniel, S. G.	Marshall
Evans, P. L.	Marshall
Fendley, E. G.	Leslie
Hall, H. J.	Clinton
Leslie, J. O.	Marshall
Moore, Raymond T.	San Antonio, Texas
Moore, W. T.	Marshall
Rogers, W. F.	St. Joe

## SEBASTIAN COUNTY

*Adams, W. F.	Fort Smith
Amis, J. W.	Fort Smith
Benefield, C. E.	Fort Smith
†Benefield, J. H.	Fort Smith
Billingsley, C. B.	Fort Smith
*Blair, A. A.	Fort Smith
*Brooksher, W. R.	Fort Smith
*Chamberlain, C. T.	Fort Smith
Clarke, A. S. J.	Fort Smith
Coffman, J. S.	Lavaca
*Crigler, R. E.	Fort Smith
Dorsey, H. C.	Fort Smith
*Eberle, W. G.	Fort Smith
Even, Martin M.	Milwaukee, Wis.
Foltz, T. P.	Fort Smith
*Foster, M. E.	Fort Smith
*Gates, Stanley M.	Fort Smith
*Goldstein, D. W.	Fort Smith
*Hall, C. W.	Greenwood
Hawkins, S. W.	Fort Smith
Henry, Louise	Fort Smith
Henry, L. M.	Fort Smith
Hoge, A. F.	Fort Smith
Hoge, M. B.	Fort Smith
*Holt, C. S.	Fort Smith
Johnson, Hugh	Fort Smith
Johnson, J. E.	Fort Smith
Jones, E. B.	Hartford
*Jones, I. F.	Fort Smith
†Kennedy, C. H.	Fort Smith
Kennedy, Virgil	Fort Smith
Koenig, A. S.	Fort Smith
Kramer, Ralph G.	Fort Smith
*Krock, F. H.	Fort Smith
Little, J. E.	Fort Smith
Martin, Art B.	Fort Smith
Melton, June	Chicago, Ill.
Mendelsohn, E. A.	Fort Smith
*Moulton, E. C.	Fort Smith
Moulton, H.	Fort Smith
Pride, Ben H.	Fort Smith
*Redman, J. W.	Fort Smith
*Scott, M. H.	Fort Smith
Shearer, F. E.	Fort Smith
*Shippey, W. L.	Fort Smith
*Smith, H. H.	Fort Smith
*Southard, J. S.	Fort Smith
*Stevenson, J. E.	Fort Smith
Stewart, J. B.	Fort Smith
Stocker, G. F.	USN
*Stubbs, S. P., Sr.	Fort Smith
Stubbs, S. P., Jr.	Fort Smith
Thompson, H. B.	Fort Smith
*Thompson, J. K.	Fort Smith
Waddell, Pearl B.	Fort Smith
Whittaker, L. A.	Fort Smith
Wilson, C. L.	Fort Smith
*Woods, G. G.	Huntington
*Woods, Wm. M.	Huntington

## SEVIER COUNTY

*Archer, C. A.	DeQueen
Callahan, Leroy	DeQueen
*Dickinson, R. C.	Horatio
Hanchey, C. C.	Forrest Park, Ill.
*Hendricks, J. S.	DeQueen
*Jones, I. G.	DeQueen
Kimball, G. L.	DeQueen
*Kitchens, C. E.	DeQueen
Norwood, M. L.	Lockesburg

## UNION COUNTY

Atkinson, O. L.	Hampton
Burton, Geo. C.	El Dorado
*Cathey, A. D.	El Dorado
Clark, Frank	El Dorado
Clowney, A. R.	El Dorado
Colvin, A. R.	Strong
Colvin, W. C.	Strong
Cullins, J. G.	Knoxville, Iowa
*Fincher, L. G.	El Dorado
Harper, J. W.	El Dorado
Irby, F. L.	El Dorado
Jones, Gus W., Jr.	Little Rock
Jones, Kenneth G.	El Dorado
*Kennedy, C. E.	Smackover
Kitchens, D. K.	New York, N. Y.
*Levine, David	El Dorado
*Mayfield, H. F.	Huttig
*Mayfield, H. J.	El Dorado
McCall, Daniel	Lawson
McFarland, Louis H.	Hampton
Mitchell, J. G.	El Dorado
*Moore, B. L.	El Dorado
*Munn, E. J.	El Dorado
*Murphy, G. D., Sr.	El Dorado
*Murphy, G. D., Jr.	El Dorado
Murphy, H. A.	El Dorado
*Muse, P. H.	Junction City
*Newton, W. L.	Smackover
*Pinson, J. H.	Shreveport, La.
Rainwater, W. S.	Hampton
*Riley, W. S.	El Dorado
*Russell, M. V.	El Dorado
Scott, B. F.	USN
Sheppard, J. K.	El Dorado
*Sheppard, J. M.	El Dorado
Slaughter, J. W.	El Dorado
Thibault, Frank	El Dorado
*Wharton, J. B., Sr.	El Dorado
*Wharton, J. B., Jr.	El Dorado
*White, D. E.	El Dorado

## WASHINGTON COUNTY

Alexander, Gilbert	Fayetteville
*Baggett, Jeff	Prairie Grove
Brizzolara, Chas. M.	Fayetteville
Bunch, W. L.	USPHS
*Butt, W. J.	Fayetteville
*Dorman, J. W.	Springdale
*DeLaney, Jos. P.	Fayetteville
*Ellis, E. F.	Fayetteville
*Fowler, W. A.	Fayetteville
Gilbert, A. A.	Fayetteville
Harrison, A. J.	Springdale
*Hathcock, Alfred	Fayetteville
*Hathcock, Preston	Fayetteville
*Hathcock, P. L.	Fayetteville
Hoge, S. F.	Fayetteville
Hughes, A. A.	Fayetteville
Huntington, R. H.	Fayetteville
Leming, H. E.	Fayetteville
Lesh, Ruth Ellis	Fayetteville
Lesh, V. O.	Fayetteville
McAllister, Max F.	Fayetteville
*Miller, R. W.	Fayetteville
Mock, W. H.	Prairie Grove
Ogden, Fred	Fayetteville
Paddock, C. S.	Fayetteville
*Richardson, Fount	Fayetteville
Riggall, Cecil	Prairie Grove
Shafer, Frank M.	Fayetteville
*Sisco, C. P.	Springdale
*Sisco, Friedman	Springdale
Stocker, Wm. J.	Fayetteville
*Weddington, Ralph E.	Fayetteville

## WHITE COUNTY

Abington, E. H.	Beebe
Adair, T. L.	Bald Knob
Allbright, S. J.	Searcy
Brown, A. R.	Africa
Burrow, Thomas E.	Carlisle
Dodd, Wm. Carroll	Bald Knob
Dunklin, A. J.	Searcy
Edwards, Hugh R.	Searcy
Emerson, A. G.	Bald Knob
Felts, W. R., Sr.	Judsonia
Felts, W. R., Jr.	Washington, D. C.
Hawkins, M. C., Jr.	Searcy
Hudgins, A. H.	Searcy
Hudgins, P. T.	USA
Kolb, Wm. Payton	Searcy
Mobley, Hugh	Beverly Hills, Calif.
Peeler, C. M.	Pangburn
Rodgers, P. R.	Searcy
Sloan, D. W.	Beebe
Sloan, J. R.	Garner
Spain, A. L.	Letonia
Wilson, W. H.	Griffithsville

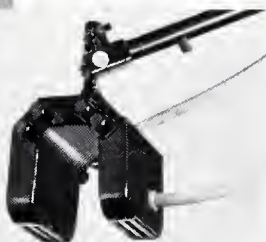
## WOODRUFF COUNTY

Brewer, E. F.	Augusta
*Dungan, C. E.	Augusta
Evans, R. H.	Chatfield
Maguire, F. C., Sr.	Augusta
Maguire, F. C., Jr.	Augusta
Morris, J. W.	McCrory
Williams, W. J. B.	Cotton Plant



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failure to diagnose acute appendicitis and for this reason was classified as preventable. Diagnosis of this complication is not easy for many reasons. The appendix is displaced upward after about the third or fourth month of pregnancy, and this combined with other factors makes difficult the differential diagnosis between appendicitis and pyelitis, ureteral stone, abruptio placentae during late pregnancy, a twisted cyst and many other conditions. Perforation and suppurative peritonitis are most serious during pregnancy. Abortion and premature labor are quite common and the maternal mortality is very high, especially at or near term.

The possibility of appendicitis should always be kept in mind by the obstetrician even though it is not a very common occurrence. Early diagnosis is most important and early operation results in a relatively low death rate. Recurrent attacks of appendicitis should be treated by appendectomy before pregnancy occurs. A patient with a history of appendicitis should not be operated upon during pregnancy unless a recurrence takes place; and a normal or chronic appendix should not be removed at the time of caesarean section (performed for some other indication) because infection may be transferred from the appendix to the uterus.

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## OBITUARY

RUFFIN LONGEST, 78 years of age, died at Wynne October 16th. A graduate of the University of Nashville Medical Department in 1899, he had practiced in Cross County for many years. He is survived by his wife, two brothers and a sister.

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HENRY B. HULL, age 74 years, Mammoth Spring, died August 28th. Born in Marion, Virginia, January 14, 1873, he graduated from Emory and Henry College and received his

medical education at the Medical College of Virginia. He located at Ravenden Springs in 1898 for practice and moved to Mammoth Spring in 1920 where he remained in active practice until his death. He was married in 1900 to Miss Maude Gissette who survives him. He was an elder in the Presbyterian church, a member of the Masonic lodge, of the Rotary club and other civic organizations. In addition to his wife, he is survived by two daughters, two grandchildren and five brothers and sisters.

---

WILLIAM HALBERT MARTIN, age 46, Holly Grove, died October 25th after an illness of a few hours. A graduate of the University of Tennessee College of Medicine in 1927, he had practiced in Holly Grove for over 10 years. Surviving relatives are his wife, mother, five brothers and a sister.

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CLARENCE FINNEY, age 72, died at his home in Maynard October 23rd. Born in Pope County, Illinois, he had practiced in the Biggers, Warm Springs and Maynard communities. Surviving relatives are seven daughters and a son.

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FLOYD CLARDY, age 59, died at his home in Hot Springs National Park November 21st after an illness of 19 months. Born at Jonesboro, he graduated from the University of Tennessee in 1916 and served in the Army Medical Corps during World War I. He located at Hot Springs National Park in 1922. A charter member of the Jonesboro post, American Legion, he was its second post commander. He was a member of the Garland County Medical Society, the Arkansas Medical Society, the Elks and Masonic lodges and of Sahara Shrine Temple. He was a fellow of the American Medical Association. Surviving him are his wife, two sons and a daughter.

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# THE JOURNAL OF THE ARKANSAS MEDICAL SOCIETY

Owned by the Arkansas Medical Society and Published  
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W. R. BROOKSHER, M. D., Editor  
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## EDITORIAL

### THE ARKANSAS HEALTH PLAN

CHAS. R. HENRY, M. D.\*  
Little Rock

The first enrollment of farm groups in the Arkansas Health Plan was expected to be arranged this month following the setting up of a detailed program for enabling the residents of rural areas to become members of the service.

The program, which has been approved by the Joint Committee of the Arkansas Medical Society and the Arkansas Hospital Association, was worked out in conferences between Milton L. Daugherty, Plan director, and leaders of the State Farm Bureau Federation and the State Extension Service.

Since the rates and benefits of the Arkansas Health Plan are established on the basis of group operation, the rural enrollment program calls initially for working through County Farm Bureaus. The order in which the Farm Bureaus will

be enrolled will depend upon the degree of interest shown in each instance, the availability of a hospital, the potential enrollment, and similar factors.

A meeting of the Farm Bureau membership or board in all cases will precede actual enrollment of the membership. At this meeting Mr. Daugherty will explain the Plan in full. The actual enrollment then will follow the appointment of a Health Plan chairman and a committee to help collect applications.

Assisting in the general program will be the County Extension Service Agent and the County Home Demonstration Agent. The Plan already has been adopted as a project of the County Home Demonstration Clubs.

Mr. Daugherty has reported that a number of Home Demonstration Clubs are anxious to handle enrollment through their own groups, but that the problems of handling billings, collections and other details were felt to be such that they could not be conveniently handled by the farm wives who serve as the clubs' officers.

Much of the club membership overlaps with that of the County Farm Bureaus, in any event. As a consequence, it has been arranged that the Farm Bureau enrollment will come first, and that Home Demonstration Club members who have not been able to enroll in the Plan through the Farm Bureau will be permitted to organize their own groups subsequently.

The entire program has been arranged with a view to reaching the greatest number of farm people in the shortest possible time.

Interest in the Arkansas Health Plan, which is underwritten by the John Marshall Insurance Company, continues to grow rapidly, and a number of employed groups already have been enrolled. Others have given approval of the Plan for their employees, and enrollment period for these are being scheduled as rapidly as possible. Further expansion of the Plan staff will be necessary as the enrollment continues to expand.

A recent meeting of the Joint Committee was attended by L. T. Evans, M. D., as president of the Arkansas Medical Society, and by Moody Moore, president of the Arkansas Hospital Association. At this meeting the progress of the Plan was reviewed and satisfaction expressed with accomplishments to date.

It was the consensus of the meeting that all physicians receiving inquiries about the Arkansas Health Plan be urged to refer such inquiries

\* Chairman, Committee on Medical Service and Public Relations.



directly to the Plan office. Such inquiries should be directed to M. L. Daugherty, Director, Arkansas Health Plan, Waldon Building, Little Rock.

## ARKANSAS HEALTH PLAN

### Questions and Answers

- Q. Is it necessary for the physician to sign any sort of agreement in order to participate in the Arkansas Health Plan?
- A. No. Any doctor may participate simply by sending his statement for surgical or obstetrical services directly to the John Marshall Insurance Company, which is underwriting the Plan. The Company address is given on the Identification Card issued to Plan members.
- Q. Are members restricted to the use of certain hospitals?
- A. No. Full benefits are provided in any ethical hospital anywhere, either in Arkansas or outside the State.
- Q. To whom should I direct inquiries about the Plan?
- A. To M. L. Daugherty, Director, Arkansas Health Plan, Waldon Building, Little Rock.
- Q. What is the significance of the Effective Date shown on the Identification Cards of Plan members?
- A. This is the date on which the member becomes eligible for service under the Plan. The protection becomes effective for cases entering the hospital on or after this date and for surgical services rendered on or after the date. For maternity cases there is a waiting period of nine months from the Effective Date except for groups in which high enrollment is attained. In case of doubt, query the John Marshall Insurance Company.

## THE A. M. A. DIRECTORY

Preparations are now being made to publish the Eighteenth Edition of the American Medical Directory. The last edition was issued late in 1942. Wartime restrictions and the entrance of a large number of the physicians of America into military service with subsequent change locations, as well as other practical difficulties, have prevented the publication of a new edition until 1948.

Directory cards have been mailed to every physician in the United States, its dependencies,

and Canada, requesting information to be used in compiling the new directory. Physicians should immediately complete and return the card promptly even if there has been no change in any of the points on which information is requested. It is also urged that physicians complete the right half of the card, which information will be used exclusively for statistical purposes. Even if a physician has sent in similar information recently, he should complete and mail the card promptly to insure accurate listing of his name and address. There is no charge for publishing the data nor are physicians obligated in any way.

The directory is one of the most important contributions of the American Medical Association to the work of the medical profession in the United States. In it, as in no other published directory, one may find dependable data concerning physicians, hospitals, medical organizations and activities. It provides full information on medical schools, memberships in special medical societies, tabulation of medical journals and libraries and, indeed, practically every important fact concerning the medical profession in which anyone might possibly be interested.

Any physician who fails to receive one of the directory information cards should write the Directory Department, American Medical Association, 535 North Dearborn Street, Chicago 10, Illinois, requesting that a duplicate card be mailed.

## RANDOM THOUGHTS OF THE SECRETARY

October 12th. Over "Route 66" and Oklahoma, Texas and New Mexico to stop for the night at Tucumcari, taking what we call a long-awaited vacation but what we are certain our colleagues will call "another vacation."

October 13th. Across New Mexico, "The Land of Enchantment" today, visiting Acoma, "The Sky Pueblo"; Old Albuquerque, and other sites in a land where historic moments are many. Tonight at Gallup's El Rancho Hotel, a desirable place for the night or a week, living up to its slogan of "The Charm of Yesterday with the Convenience of Tomorrow."

October 14th. From Gallup northward through the Navajo reservation where the neglect of this nation for its Indian wards is glaring, leaving us cold indeed on relief for Europeans when Navajos in this land are denied rights and privileges of American citizens, most particularly room enough to do their pitiful farming. In foul weather into Cortez, Colorado, where we await transportation into the mountains, a miserable rainy afternoon, totally unlike those they are supposed to have in "RIO."

October 15th. The day is spent in repairs and ad-



justments to our host's motor equipment and late at night we take off in an odd caravan to Buckhorn Lodge, well away in San Miguel county, the muddy, narrow roads; the steep cliffs, the sliding, slipping process keeping all alert but finally to the lodge and to bed at 3 in the morning.

October 16th. Scouting the deer country today with the youngster, locating a bear, which we, with all our crafty woodsmanship, stalk to obtain a closer shot, being outwitted completely as the bear stalks a rapid stride into the brush and that trophy is lost, assuming that our marksmanship had bested our woodsmanship.

October 17th. Today the hunt becomes a success as the youngster places one shot well and acquires a beautiful buck as a trophy. For us, the day is a succession of totally uninteresting female deer.

October 19th. Today visiting that unique geographical location where the states of Arizona, New Mexico, Colorado and Utah meet, a spot unlikely to be visited by the sightseer in numbers, located as it is, 35 miles from a highway and 8 miles from a road, yet affording its infrequent visitor a conversational prelude of unequaled rarity.

October 20th. Reading a newspaper today for the first time in five days and noting that there is a lovesick llama in Hollywood, that the "high command" stuck his foot in his mouth again, that Arkansas lost to Texas, that there is a "Red" hunt in Hollywood, that the Denver Post carries no mention of Morris Fishbein's coming trip to Camden, bringing the obvious conclusion that we have missed nothing while away in the mountains. So on across the desert and plain to meet at the end of the day an evil of urban civilization—the traffic jam which comes with the release of those who attended the midget races in Oklahoma City this night.

October 22nd. This afternoon we discuss the Arkansas Health Plan with the Home Demonstration Council of Crawford County, an interested group indeed in prepayment medical care.

October 23rd. Dining with the Sixth Councilor District group at Hall's in De Queen, a restaurant without compare in southwest Arkansas. The program completed, we are reminded of the truth of Goldstein's remarks on the politics of Sevier County physicians: this night we carried the ball for them to get a hospital when we thought we were visiting the councilor district medical society.

October 24th. Brought to Little Rock last night by Ellery Gay and with about three hours sleep, this morning we undergo our most complete "fouling-up" of air travel, passing over Fort Smith and Muskogee, landing at Tulsa and returning by Muskogee to Fort Smith, a matter of 350 miles of air travel to get 140, all due to inclement weather, reminding us once again, and more forcefully does it come to the memory of Peggy, of that drive to Muskogee in 1946 when we returned from Wichita with Gay and Sam Thompson.

October 26th. Again air travel fails and we miss meeting with the Program Committee in Little Rock this morning.

November 8th. On the campus at South Bend this afternoon as the star-spangled competition of 34 years

comes to an end in a glorious game, but let us hope that Army will not choose future opponents on the basis of no "ticket difficulties." Departing in the blustery Indiana twilight with warmth of appreciation for the meaning of sports in this America of ours and grateful that we have seen and enjoyed both headliners and dubs throughout these years.

November 9th. In all the comfort that air travel affords, home this morning from Chicago, reading in the papers that good old bureaucracy has made another bobble, this time in trying to arrange poultry feeding.

November 11th. Come the Lockwoods, ever the promise of a happy occasion, and the new department of roentgenology is fittingly dedicated even to heckling of the proud director by the distinguished guest.

November 14th. In an advertising gesture to show what Magnolia has to offer in addition to Magnolia Inn, John Wilson sends Magnolia-grown pheasants, indistinguishable when broiled from those we tracked down corn rows in South Dakota.

November 16th. The Council meets in Hot Springs where Euclid Smith has arranged with the Arlington for food which is superior.

November 17th. For the first time a Democratic administration offers to save the world and makes no mention of the urgent need to include compulsory sickness insurance in its plans.

November 21st. Visiting and observing the tremendous material in the department of radiology, Charity Hospital of Louisiana, the guest of jovial Leon Menville. Tonight at Broussard's in Vieux Carre for dinner where there is naught of the customary gaiety of this old town and so to bed after a passing look in the old Absinthe House where long years ago we first signed our name with the suffix "M.D."

November 22nd. With the staff at Charity Hospital this morning and now we learn some of the difficulties which attend the provision of medical care under governmental dispensation, due consideration of which we suggest to Chenault and Jackson as they enter into an integrated program. With Mid-Continent after delay by weather and into Shreveport where there is added delay of mechanical nature but finally on home in the driving rain, but smooth passage, some five hours late.

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## PROCEEDINGS OF SOCIETIES

The Sebastian County Medical Society was addressed November 11th by H. O. Mahoney, Chicago, "The Radiographic Study of Anatomic Sections" and Ira H. Lockwood, Kansas City, "Acute Small Intestinal Obstruction."

J. K. Thompson, Secretary.

The Fifth Councilor District Medical Society met at Camden October 30th. Dinner was served at the Country Club and the public meeting in the Auditorium was addressed by Morris Fishbein and Gov. Ben. Laney.

The Benton County Medical Society met in dinner session at Rogers November 13th for the following program: "The Appraisal of the Surgical Risk," Henry G. Hollenberg, Little Rock.

G. C. DeBolt, Secretary.

The Sixth Councilor District Medical Society met in dinner session at DeQueen October 23rd for the following program: "Integration of the University of Arkansas School of Medicine and the State Hospital for Nervous Diseases," H. Clay Chenault, Little Rock; "The Arkansas Health Plan," Ellery C. Gay, Little Rock, and "Problems in Surgery," John C. Wilson, Magnolia.

The Craighead-Poinsett County Medical Society was addressed November 6th by A. D. Garner, Paragould, on "Surgical Treatment of Inguinal Hernia."

J. H. McCurry, Secretary.

The Third Councilor District Medical Society met October 23rd at Stuttgart. The following program was presented: "Menstrual Disturbances of Teen and Old Age," Eugene Ellison, Little Rock; "The Differential Diagnosis and Treatment in Functional Disturbances of the Bowel," Thomas C. Birdsall, St. Louis; "The Diagnosis and Treatment of Cancer as it Relates to General Practice," Louis H. Jorstad, St. Louis; "Integration of the University of Arkansas School of Medicine and the State Hospital for Nervous Diseases," George W. Jackson, Little Rock, and "The Arkansas Health Plan," Mr. M. L. Daugherty, Little Rock. Following dinner, W. H. Anderson, Booneville, Mississippi spoke on "The Medical Front." Officers elected are: J. C. Gilliam, Des Arc, president; Milton C. John, Stuttgart, vice president, and J. O. Rush,

Forrest City, secretary-treasurer. The Society will meet at Forrest City in the spring.

S. A. Drennen, Councilor.

The First Councilor District Medical Society met at Jonesboro October 15th for the following program: "Some Suggestions as to the Management of Heart Failure," J. D. Young, Memphis; "The Diagnosis and Treatment of Convulsions in Children," C. V. Croswell, Memphis; "Diagnosis and Treatment of Some of the Tumors in the Genito-Urinary Tract," I. G. Duncan, Memphis. In addition Clay Chenault and R. H. Jackson spoke on the program of integrated construction and operation of the University of Arkansas School of Medicine and the State Hospital for Nervous Diseases. Officers elected are: O. H. Clopton, Rector, president, and J. B. Futrell, Rector, vice president. The spring meeting of the Society will be held in Rector.

J. H. McCurry, Secretary.

The Annual Conference of the Arkansas State Board of Health was addressed in Little Rock November 20-22 by: A. M. Washburn, "Cave Sickness;" K. W. Cosgrove, "Visual Conservation in Education;" L. K. Hundley, Pine Bluff, "Visual Conservation in Industry;" C. A. Rosenbaum, "The Cancer Control Program in Arkansas;" and A. C. Curtis, "Present Status of Tuberculosis Control in Arkansas."

Ross Fowler, Secretary, Boone County Medical Society forwarded the first 1948 membership assessments to the office of the state secretary on November 19th.

Drs. Henry Hearnberger, John Miller, Tom Meek and Robert Glasscock entertained the members of the Ouachita County Medical Society with a turkey dinner at the home of Dr. John Miller in Camden Thursday night, November 20. The following program was given after a delightful dinner and social hour: "Chronic Ulcerative Colitis" (sound motion picture); "Infections of the Urinary Tract," H. Fay H. Jones, Little Rock; and "The Hand," Joe Shuffield, Little Rock.

R. B. Robins, Secretary.

## BOOK REVIEW

**Dr. Colwell's Daily Log for Physicians.** Champaign, Illinois: Colwell Publishing Company, 1947.

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## PERSONALS AND NEWS ITEMS

J. C. Gilliam, Des Arc, attended the Oklahoma City Clinical Society sessions during October.

A. S. J. Clarke and V. N. Kennedy, Fort Smith, attended a conference on fractures at the University of Kansas in November.

The Arkansas State Nurses Association was addressed at its recent meeting in Fort Smith by Fred H. Krock, Fort Smith, "What a Nurse Can Do to Aid in the Cancer Education Program," and J. Ken Thompson, Fort Smith, "What Special Duty Nursing Can Contribute to the Recovery of the Patient."

R. E. Rowland, Little Rock, has accepted an appointment with the Louisiana Central State Hospital at Pineville.

Roy J. Turner has moved from North Little Rock to Clarendon.

Fred Hames, Pine Bluff, attended the American Cancer Society meeting in New York October 27-29th.

A. R. Brown, formerly of Searcy, is now engaged in medical missionary activities in Africa.

I. F. Jones, Fort Smith, and Clyde D. Rodgers, Little Rock, were elected to membership in the Central Association of Obstetricians and Gynecologists at the recent Louisville meeting of that society. B. J. Reaves, Little Rock, a member, also attended the sessions.

BORN—James Fitzhugh Burton, to Dr. and Mrs. Frank M. Burton, Hot Springs National Park, October 5th, 1947.

The following attended the meeting of the American Academy of Ophthalmology and Otolaryngology in Chicago during October: R. C. Cook, R. J. Calcote, W. J. Schwarz, J. L. Smith, John W. Smith and J. G. Watkins, Jr., Little Rock; Fred W. Odgen, Fayetteville; L. M. Henry, Louise M. Henry, S. Z. Faier and E. C. Moulton, Fort Smith. Dr. E. C. Moulton also attended the sessions of the eye, ear, nose and throat society secretaries. The examination paper of E. C. Moulton, Jr., Fort Smith, on perimetry was

exhibited in the home study exhibit of the Society.

H. W. Savery, Van Buren, was a Colorado deer hunter during October.

C. C. Hanchey is taking a basic course in otolaryngology at the University of Illinois.

A. A. Blair, Fort Smith, spent a November vacation at Edgewater Gulf, Mississippi.

L. D. Massey, Osceola, recently attended clinics at St. Louis.

T. Duel Brown, Little Rock, and Carl L. Wilson, Fort Smith, attended the South Central Section of the American Urological Association at Fort Worth recently.

R. E. Schirmer has opened an office in Fort Smith for the practice of dermatologic allergy.

Glenn G. Hairston has been elected surgeon of the Prescott post, American Legion.

At the Twelfth Assembly and Convocation of the United States Chapter, International College of Surgeons, Chicago, the following were inducted into the college: Fellows—C. C. Reed, Jr., James D. Hayes, Hoyt R. Allen, Little Rock; M. C. Hawkins, Jr., Searcy; Fred H. Krock, Fort Smith, and W. Decker Smith, Texarkana. Associates—Frank M. Burton, Hot Springs National Park, and Howard S. Stern, Little Rock. Affiliates—W. B. Harrell, Texarkana, and R. M. Atkinson, Jr., Bentonville.

The Bronze Star was recently awarded Ellery C. Gay, Little Rock, for outstanding services as a plastic surgeon with the Second Auxiliary Surgical Group during World War II.

A. S. Koenig, Fort Smith; D. C. Lee, Hot Springs National Park, and M. J. Kilbury, Little Rock, attended the meeting of the American Society of Clinical Pathologists in Chicago during November.

S. P. McConnell, Booneville, spent a recent vacation on the Mississippi Gulf coast.

G. L. Kimball, DeQueen, has been elected



Grand Junior Deacon, Grand Lodge of Masons in Arkansas.

E. J. Easley has been elected president of the Arkansas Public Health Association.

C. A. Archer, Jr., Conway, and H. E. Mobley, Morrilton, recently took special work at the Mayo Clinic.

"Hints in General Surgery" by R. B. Robins, Camden, appeared in the November 22nd issue of The Journal of the American Medical Association.

Dr. and Mrs. D. A. Rhinehart, Little Rock, attended "Homecoming Day" at the University of Indiana November 22nd.

## WOMAN'S AUXILIARY NEWS

Mrs. F. H. Krock, president of the Woman's Auxiliary to the Sebastian County Medical Society last year, again will serve as head of the organization.

At the auxiliary's first meeting of fall, October 14th, she read the resignation of the president, Mrs. H. H. Smith, and subsequently was elected to the office. Mrs. S. J. Wolferman was named vice president, the office which Mrs. Krock held.

The other officers are Mrs. W. L. Shippey, secretary, and Mrs. B. L. Ware, treasurer.

Following a practice of many years, the women voted to contribute to the Ilse F. Oates Medical Student Loan fund, and to the Erle Chambers Memorial fund for the purchase of books for patients at the Arkansas and Wildcat Tuberculosis sanatoriums.

The auxiliary also voted to renew subscriptions of the medical society's official magazine, Hygeia, for the Girls' Club, Young Women's Christian Association, Carnegie Library, Tilles Children's Home and the tuberculosis sanatoriums.

Mrs. M. E. Foster was hostess for the meeting.

Present were Mrs. Krock, Mrs. Shippey, Mrs. Ware, Mrs. I. F. Jones, Mrs. J. S. Southard, Mrs. Arthur F. Hoge, Mrs. A. S. Koenig, Mrs. Kenneth Thompson, Mrs. Stanley M. Gates, Mrs. Wright Hawkins, Mrs. Art Martin, Mrs. W. F. Rose and Mrs. Foster. Guests were Mrs. J. D. Olson, Mrs. L. A. Whittaker, Mrs. Ben Pride,

Mrs. V. N. Kennedy, Mrs. J. B. Stewart.

Mrs. W. F. Rose, Publicity Chairman of the Auxiliary to the Sebastian County Medical Society.

Dear Auxiliary Members:

One of the objectives set forth at the time of the organization of the Auxiliary to the A.M.A. is stated, "To extend the aims of the medical profession through the wives of doctors . . ." Ours then is the great task of relating ourselves harmoniously to the laity in an effort to shape community trends with respect to health, both for the good of the public and for the advancement of medical science.

Too much emphasis cannot be placed upon a well rounded program of public relations in every Auxiliary. Our busy doctors must to a very great extent rely upon us for the building of mutual understanding with the public.

There are several ways in which we may help:

(1) All communities offer many opportunities for leadership in health projects. Throughout the year Auxiliary members should be concerned with the activities of the Woman's Field Army of the American Cancer Society. When your local medical society invites the Mobile X-ray unit of the Tuberculosis Control Division into your county, there is an opportunity for Auxiliary members to serve as clerical help. Offer your services through your local Tuberculosis Association and again at Seal Sale time. Your P.-T.A. health chairman may call upon you for assistance—be ready with suggestions.

(2) A new activity of the A.M.A. is the expansion of its health educational efforts to include the promotion of **Positive** health. Radio transcriptions on physical fitness are available for use at your local station upon request to the A.M.A. Public Relations Department.

(3) The control of community health problems should be kept within the medical profession. Prepare an outstanding program for Public Relations Day and see that your community has all the facts about prepaid medical care. Promote Hygeia so that the public may have accurate information on health problems.

Every Auxiliary is a co-partner of a County Medical Society. Let us be an adequately **informed** and vitally **interested** group.

Sincerely,

(Mrs. Louis K.) Jeane D. Hundley,  
Chairman, Public Relations.



## ARKANSAS MEDICAL SOCIETY 1947-1948

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MEETING PLACE—Robinson Auditorium, Little Rock,  
April 15-17, 1948.

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Tenth District—Benton, Crawford, Franklin, Johnson, Logan, Madison, Sebastian, Scott and Washington counties. Earle H. Hunt, Clarksville. Term of office expires 1948.

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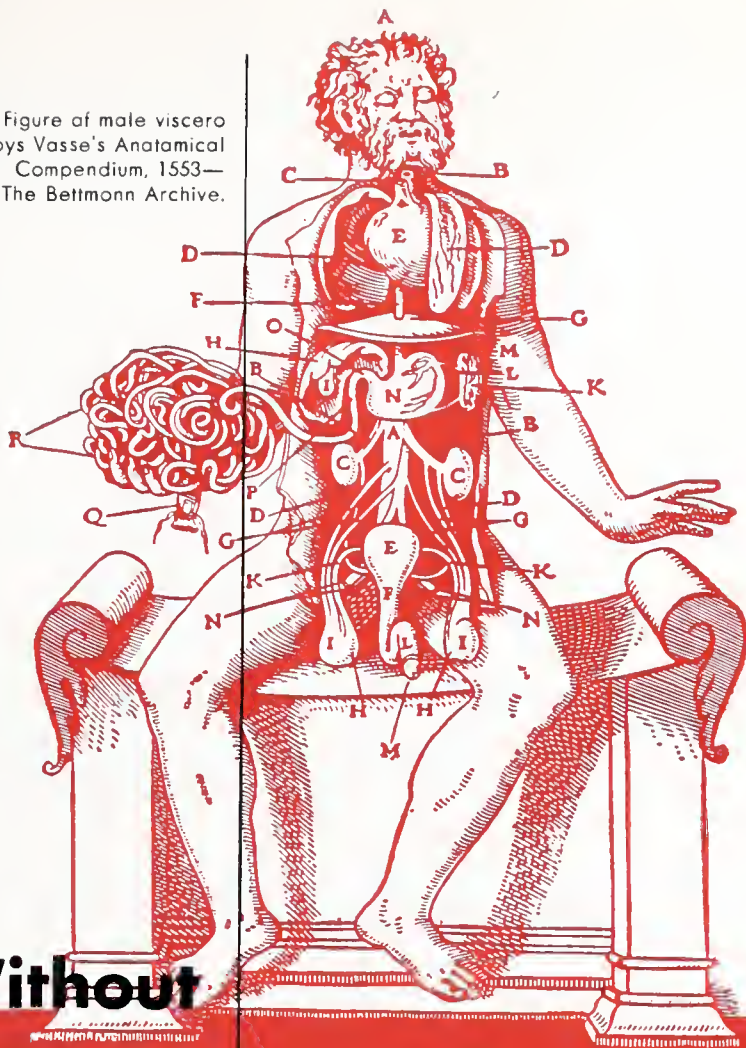


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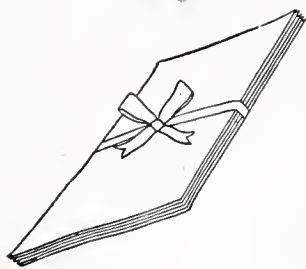
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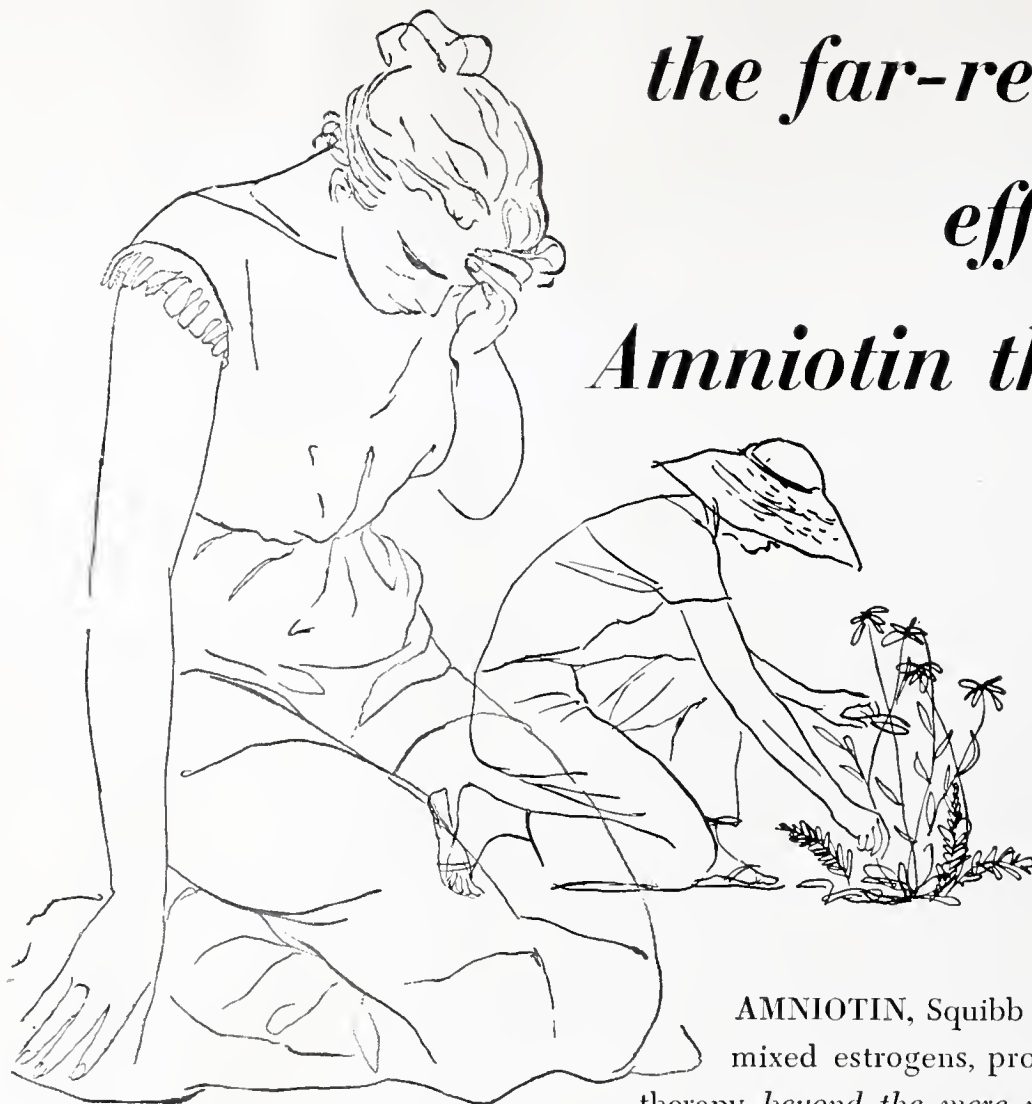
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## OF THE ARKANSAS MEDICAL SOCIETY

PUBLISHED MONTHLY UNDER DIRECTION OF THE COUNCIL

Vol. XLIV

FORT SMITH, ARKANSAS, JANUARY, 1948

No. 8

### CANCER OF THE STOMACH \*

J. DONALD HAYES, A.B., B.S., M.S., M.D.,  
F.A.C.S., A.I.C.S.

Little Rock, Arkansas

Cancer of the stomach is responsible for 30,000 to 50,000 deaths in the United States each year. It is said (Bockus) that two to four per cent of all adults die from gastric carcinoma and this disease accounts for more deaths than the combined malignancies of the mouth and throat, the salivary and thyroid glands, the breasts, the ovaries, the body of the uterus and the cervix. According to statistical data and ratio of population it is to be expected that 461 to 770 of these cancer deaths occur in Arkansas each year. In 1942 the Arkansas State Board of Health Bureau of Vital Statistics reported 195 deaths due to cancer of the stomach. In 1943 there were reported 194 deaths and in 1944 gastric cancer accounted for 205 deaths. Also, in these years, deaths from cancer of the intestines, excluding the duodenum and rectum, were reported as follows: 253 deaths in 1942; 128 deaths in 1943; and 2 deaths in 1944.

Accepted statistical data reveals that 50.3 per cent of alimentary tract cancers occur in the stomach, while 25.9 per cent are situated in the rectum (1). The colon yields 10.9 per cent and the small intestine, which is relatively immune to primary carcinoma, accounts for only 1.2 per cent. Locally, our statistics do not follow the pattern accepted in other sections of the country.

In 1885, four years after Billroth's first successful resection of the stomach, William Welch made the first analysis of any series of "cures" for cancer of the stomach. In his report, later known as the "Classical Study of Welch," there was set forth six reasons why attempts at surgical cure were doomed to failure (2). Briefly, these reasons were:

1. When symptoms appear and the patient is first seen there are usually distant metastases.
2. The location of the tumor, often involving

the cardia and extending into the esophagus, may prohibit its removal.

3. The extent of the lesion may prohibit its removal, as in cases of linitis plastica involving the whole stomach.

4. Widespread adhesion of the cancerous stomach to the pancreas and colon increase technical hazards.

5. Extreme debility of the patient may make a poor surgical risk.

6. A specially trained surgical team is imperative if operative mortality is to be kept reasonably low.

These facts and opinions are still essentially true but observation of the increasing percentage of cases resectable offer a brighter outlook.

Through the 50 years that followed Billroth's first resection three thousand patients in the United States had gastric resections for cancer with some five and ten year cures reported. But the outlook remained so gloomy, that in 1933, Maes, in New Orleans, wrote on "The Tragedy of Cancer of the Stomach" (3). Not one of 200 patients operated upon out of a total of 758 survived the three year limit. From clinics reporting from various sections of the country was reflected the low percentage of long term survival among gastric cancer patients, and the pessimistic outlook recalled the earlier statement of Welch that: "There is no proof that cancer of the stomach has ever ended in recovery."

In the last few years gastric resection for carcinoma has enjoyed a new wave of enthusiasm. Any treatment other than adequate surgical attack is, admittedly, doomed to 100 per cent failure, and, since resectable cancer can be cured, carcinoma of the stomach must be considered as a "surgical disease."

The pathology of gastric cancer is fairly well understood. Ninety-nine per cent of cancerous lesions are carcinomata. Several types of sarcomas can occur and, usually, are lymphosarcomas, leiomyosarcomas or fibrosarcomas. I observed one case with Schindler that was thought to be a chondrosarcoma.

\*Read before the 71st Annual Session, Arkansas Medical Society, Little Rock, April 18, 1947.



The classification of gastric carcinoma as described by Ewing, based on the histological data of Kaufmann lists the following types (4):

1. Adenocarcinoma.
2. Gelatious carcinoma.
3. Ulcerocancer or carcinoma following peptic ulcers.
4. Simplex or diffuse carcinoma.
5. Diffuse scirrhus carcinoma.
6. Linitis plastica or sclerosing fibrocarcinoma.

The most frequent stomach cancer encountered is the adenocarcinoma. This classification serves well enough as a working basis for consideration of gastric carcinomata. When presence of the lesion is suggested, or proven, then of most importance to the surgeon is a basis for determining accessibility to surgical attack and cure. A favorable prognosis is essential to any hope of successful operative procedure. To obtain this the clinical behavior of different lesions must be classified. The degree of malignancy, the characteristics of invasiveness of the tumor and the manner of metastasis, influence the end result to such an extent that the criteria of treatment must depend upon these factors. Broders believed that the histologic features might prove of value in prognosis and has divided all carcinomas into four grades of malignancy (5). Microscopically, Broders' "Grade I" carcinoma shows marked differentiation of cells in an almost normal tubular like arrangement similar to that of a benign tumor. In "Grade II" there is more irregularity of the tubules and the epithelium is arranged in layers with papillae often seen in the lumen. In "Grade III" the irregularity is more pronounced but some tubules are still present. In "Grade IV" there is total irregularity in arrangement of the cells with variation in sizes and shape. No tubules are present in the form of adenomatous tissue. Walters reported five year survival rates following resection to be 62 per cent in Grades I and II, 30 per cent in Grade III and 23 per cent in Grade IV.

The microscopic grading of tumors has proven quite useful in the post-operative prognosis but does not meet the requirements of prognosis before operation and it is in the pre-operative study that information is so badly needed in order to determine the possibility of a favorable outlook for attempted surgical cure. Boormann's macroscopic typing of tumors is described by Schindler as he observed them gastroscopically (6). Here is a classification that more nearly fits the surgeon's need for a working basis to determine the prospects of favorable pre-operative

prognosis.

Boormann's "Type I" is the polypoid carcinoma. This is a "mushroom-like" growth with overhanging edges and a broad base. The surface may appear nodular or granular and the lesion may be very large but is sharply limited. Ulceration is unusual except late in the course of the disease and growth is slow. This type of lesion regardless of microscopic grading offers an excellent surgical prognosis, the unfortunate factor being that it occurs only in 2.9 per cent of instances.

"Type II" is the non-infiltrating carcinomatous ulcer. This ulcer may be quite large and is surrounded by an elevated wall that slopes steeply towards the surrounding mucosa and is sharply demarcated. The tumor may grow large and invade contiguous structures but always the demarcation is present and does not assume an infiltrative character. This is the lesion often described as the benign ulcer that has undergone malignant change but this is as yet unproven and it is more likely that the malignant ulcer was a malignancy in the beginning that ulcerated. Type II carcinoma occurs in 17.6 per cent of all cases and offers the most favorable prognosis of all gastric cancers if operated early.

"Type III" is an infiltrative carcinomatous ulcer. In this type is found an ulcer lying in the center of a marked elevation. At one side of this ulcer will be seen a wall which may be smooth or nodular. This wall is not so steep, but gradually infiltrates into the surrounding mucosa. This wall never surrounds the entire ulcer and that portion of the ulcer where the wall is lacking is seen at gastroscopic examination to blend gradually with the surrounding mucous membrane. The lack of demarcation is evidence of an infiltrative character and indicates a less favorable prognosis. This type occurs in 16.3 per cent of all cases.

"Type IV" is a diffuse infiltrating lesion. The lesion may be small or extend throughout the stomach. There may or may not be ulcerations. Upon gastroscopic examination or gross inspection of the tumor there is no evidence of sharp limitation to be found. While microscopically all forms and types occur, undifferentiated forms are most frequent. This type offers the poorest surgical prognosis of all and, unfortunately, occurs in 63.2 per cent of all cases.

Since surgery offers the only hope in cancer of the stomach, early diagnosis is imperative. The history cannot be relied on in making a diagnosis. Symptoms ranging from mild dyspepsia to constant epigastric distress may indicate



simple gastric inflammations or benign ulcers as well as malignant neoplasms. Most significant in the history is probably the presence of epigastric distress, after the age of 40, of less than a year's duration. Marked weight loss, anemia and other signs of debilitation are indicative of a late diagnosis. The increasing tendency of clinicians to accept psycho-somatic medicine and explain stomach complaints as various neuroses is extremely hazardous. Laboratory examinations of stomach contents are inconclusive. Their value is not great in comparison to the direct morphological methods of X-ray and gastroscopy. Competent fluoroscopy, using relief technique and full-stomach visualization, give objective findings that are conclusive. Gastroscopy cannot supplant the value of X-ray examination and does not compete with it. Gastrosopic examination of the interior of the stomach does present an objective method of diagnosis that aids in the study of gastric pathology and complements the work of the roentgenologist. The two methods are indispensable to investigation of stomach lesions and enable an earlier diagnosis of cancer when present.

The treatment of gastric carcinoma, if cure is attempted, is resection of the stomach. Time does not permit detailed description of surgical techniques. The location and extent of the lesion determine the method of surgical attack. In cases considered operable, if the lesion is in the pyloric or lower portion of the stomach, an abdominal approach will usually suffice. Higher lesions involving the fundus or cardia may require a transthoracic approach and where the stomach is difficult to mobilize or the growth extensive a thoraco-abdominal wound may be necessary. These various methods of approach do not present serious obstacles and when employed by competent surgical teams, in proper surroundings, with adequate anesthesia and therapeutic support, offer the cancer victim a chance to survive.

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## TULAREMIA IN ARKANSAS

R. H. RIGDON and C. R. CHESNUTT, JR.

Department of Pathology, School of Medicine, University of Arkansas, Little Rock, Ark.

The first case of tularemia in Arkansas was reported to the State Health Department in 1927. Only 91 cases were reported before 1938. A total of 232 cases were reported in the state during 1938 and 1939. The number decreased to 104 in 1942 and 102 in 1945. (1) The frequency of any disease usually cannot be determined accurately from vital statistics. No doubt there are cases of tularemia occurring now within the state that are not reported to the Health Department. The increase in frequency of tularemia in Arkansas has served as a stimulus for us to study the disease.

The first report of what we recognize now as tularemia was made by Pearse from Utah in 1910. He reported nine cases as "deer fly fever." Three years before Martin of Arizona wrote to Novy in Michigan and described five cases in which he considered the disease to result from skinning and dressing wild rabbits. McCoy and Chapin in 1911 isolated *Bacterium tularense* from ground squirrels in Tulare County, California. Vail of Cincinnati in 1914 reported the first human case of tularemia in which *B. tularense* was isolated. (2).

Tularemia usually manifests itself in one of the following four ways: (1) Ulceroglandular, characterized by an ulcer of the skin usually located upon the fingers or hands, accompanied by enlargement of the epitrochlear and axillary lymph nodes. (2) Oculoglandular, in which a lesion occurs on the lids, accompanied by a conjunctivitis and enlargement of the regional lymph nodes. (3) Pneumonic, with signs of toxemia and sepsis with either lobular or lobar involvement of the lungs. (4) Typhoid, which clinically resembles typhoid fever. It may follow any one of the other three forms of the disease or it may be a specific form of tularemia. Lesions are distributed throughout the body.

At the University Hospital 26 cases of tularemia were seen between January 1940 and July 1946. In this group there were 18 cases of the ulceroglandular type, three cases of the pneumonic form and two cases each of the oculo-glandular and typhoid types, and one case was unclassified. This disease may occur at any age. In this series, four cases occurred between 0 and 9 years; six between 10 and 19



years; two between 20 and 29 years; seven between 30 and 39 years and three between 60 and 69 years of age. White males had the disease more often than females and colored people. A total of 21 cases occurred in the white race and five in the colored; 22 of these were in males and four in females. One-third of the group gave a history of some contact with rabbits; three patients said they were bitten by a tick, while others attributed the occurrence of tularemia to the bite of a cat or a skunk, while others did not associate their illness with any vector. One of our cases resulted from an infection obtained while performing an autopsy. Four of the 26 patients with tularemia succumbed to the disease and each was autopsied.

The diagnosis of tularemia in 21 cases was confirmed by an agglutination test and by an autopsy in four. One case was diagnosed only from the clinical findings. Geographically, the largest number of cases was 17 reported from Pulaski County, two each from Arkansas, White, Dew and Saline, while only one case each originated in Cleburne, Jefferson, Cross, Baxter, Chicot, Hot Springs, Van Buren, Independence, Faulkner, Stone, and Ouachita. The seasons of the year did not influence the frequency of the occurrence of tularemia in this series. The largest number of cases, five, was seen in August; four cases were seen in January; three in April and May; two in March, July, September, November and December, and one during February and June. No cases were seen in October.

Many of the patients in this group of 26 cases were unable to state the exact time of onset of the infection; however, a few placed the onset as 1 to 21 days before they were admitted to the hospital. Only two patients were sick for less than 20 days; 18 were sick from 20 to 50 days, while one was sick for three months.

The following cases illustrate the clinical findings in each of the four types of the disease:

#### Oculo-Glandular Type of Tularemia—No. 21366

The patient was a white male 13 years of age who was admitted with an infection in the left eye and a history of fever for two weeks. He thought that a tick bit him on the upper left eyelid about 30 days previously. Two weeks later there developed an acute purulent conjunctivitis in the left eye. This was followed by cervical lymphadenitis. A chill, fever and vomiting accompanied this ocular infection. The fever persisted. The infection in the left eye improved following the uses of "eye wash." However, the cervical adenitis persisted.

On admission the conjunctiva of the left eye was hyperemic and the upper lid was edematous. The cervical lymph nodes on both sides were enlarged and tender.

This was more marked on the left side. The lymph nodes in the left axilla were enlarged. The spleen was palpable. There was an acute pharyngitis and acute otitis media on the left. A fine macular rash was present in the skin over the lower thorax, abdomen and lower extremities which faded on pressure. The temperature was 104° F., pulse 125, and the respirations were 28 per minute. The red blood cell count was 3,650,000, the hemoglobin 76 per cent and the white blood cell count 12,000 with 69 per cent polymorphonuclear leucocytes, 20 per cent lymphocytes, 6 per cent stabs, 4 per cent monocytes and one per cent eosinophiles. Urinalysis was negative.

Numerous leucocytes were present in a smear from the left eye; however, no bacteria were demonstrated. A blood culture showed no growth after 24 hours incubation. A smear from the throat showed bacteria consistent with non-hemolytic streptococci. On the fourth day after hospitalization, agglutinations for Protein OX 19 were negative, while the agglutination for *B. tularensis* was positive in a dilution of 1—160. The titer for *B. tularensis* was 1—640 ten days later.

The patient remained in the hospital for 20 days, during which time the temperature gradually returned to normal. The cervical adenitis decreased.

#### Typhoid Type of Tularemia—49494

The patient was a white male 35 years of age. He had worked as a farmer and his health was good. Ten days before admission to the hospital he went to work in the morning and about 10 o'clock he felt tired and ached all over. He stopped work. During the afternoon he developed a headache and anorexia. At this time nocturia occurred. Urination was accompanied by frequency and burning. During the following 4 or 5 days he had fever and night sweats but no chills. All of his bones seemed to ache. There was pain in the lower lumbar region. Essentially nothing could be retained by mouth.

A non-productive cough developed 2 or 3 days before hospitalization. This was accompanied by a sensation of tightness in his chest. There was some jaundice at this time. There was nothing in the history to suggest tularemia.

On admission to the hospital the patient was acutely ill, with a temperature of 101.4° F., pulse 84 and respirations 16 per minute. The white blood cell count was 6,700 with 63 per cent polymorphonuclear leucocytes, 24 per cent lymphocytes, 6 per cent mononuclears and 4 per cent stabs. The red cell count and hemoglobin were normal. The urine was negative. Two lymph nodes were enlarged in the right inguinal region.

A friction rub was present at the base of the right lung 72 hours following admission, and 48 hours later there was clinical evidence of pneumonia in both lower lobes. The cough was still present; however, it was non-productive. The patient continued to run a high spiking type temperature, reading 104° and 105° F. Two days before death he had his first chill, and the following day a purpuric, minute rash appeared in the skin over his lower chest and abdomen. This rash did not disappear on pressure.

#### Laboratory Examination

Several blood cultures were negative. Agglutination for *B. typhosus* was positive in 1—40 dilution, for undulant fever it was negative and for *B. tularensis*, positive in a dilution of 1—320 on the day preceding death. The leucocyte count was slightly elevated during



the first three days; however, it dropped from 12,800 on the third day to 7,900 on the fourth day and to 5,700 on the seventh day of hospitalization. The polymorphonuclear leucocytes varied from 63 to 84 per cent. The blood serology was negative. A few red and white blood cells were present in the urine, the albumin was 2+ and the Sp. G. varied between 1.012 and 1.025.

#### Pathological Examination

The autopsy was performed one hour after death. The changes were typical of a widespread tularemic infection. The anatomical diagnosis was as follows: Tularemic pneumonia involving both lungs; empyema bilateral (500 cc); mucus plugs in bronchi; atelectasis of lungs; acute generalized peritonitis (1,000 cc—no bacteria demonstrated); splenomegaly 210 grams; focal areas of necrosis in spleen and liver (tularemic); focal areas of necrosis in inguinal, mesenteric, retroperitoneal and mediastinal lymph nodes (tularemic); cyanosis of lips; emaciation; ulcerations in mucosa of stomach and rectum secondary to stomach and rectal tubes; hemangioma of liver.

#### Ulcero-Glandular Type of Tularemia—No. 14685

The patient was a white female 35 years of age. She dressed two rabbits 25 days preceding the time of hospitalization. At the time, she punctured the skin of the right index finger in two places. Three days after dressing the rabbits she developed a headache, nausea, rigors and swelling of the right epitrochlear and axillary lymph nodes. Approximately one week following the injury to her right finger, the areas were swollen and inflamed. Shortly thereafter, they became necrotic and subsequently developed into two punched out ulcers. These lesions healed before the patient was hospitalized. Chills, fever, nausea, vomiting, pain in lower extremities, headaches and loss of weight had been experienced by the patient. The fever subsided, however, 4 days before she came to the hospital. Two days before admission she developed a skin eruption over the extremities.

On admission she was not acutely ill; however, the rash was present in the skin of the forearms and on the anterior surface of the legs. It was macular slightly elevated non painful and did not itch. The skin lesions disappeared when the sulfa drugs were discontinued. The healed ulcers on the index finger were approximately 3 mm. in diameter. The epitrochlear and axillary lymph nodes were enlarged 2 to 3 times their normal size. The white blood cell count was 10,200 with 39 per cent polymorphonuclear leucocytes 52 per cent lymphocytes, 6 per cent stabs, and 3 per cent eosinophiles. The hemoglobin and red cell counts were normal. The urinalysis was negative. The agglutination test for tularemia was positive in a dilution of 1—640.

The patient remained in the hospital for 17 days. The temperature was elevated during the first 5 days, after which it remained approximately normal. The axillary lymph nodes remained enlarged and tender but did not appear as if suppuration were going to occur. The lymph nodes were still enlarged when she was discharged from the hospital.

#### Pneumonic Type of Tularemia—No. 56824

The patient was a colored male 65 years of age who was unable to give any history when brought to the hospital by his daughter, who stated that he was in good health until 5 weeks before, at which time he had a chill and a headache. The patient remained in bed because of weakness, headache, cough and fever. The cough increased in severity and it became productive of a thick, yellowish-white sputum. He became worse

and during the 2 weeks before admission was unable to talk. The fever continued with what was considered to be afternoon elevations. The patient lost 50 pounds during the 5 weeks of illness.

On examination, the patient was emaciated and dehydrated. The respirations were very rapid and shallow, and the skin was warm and dry. Bronchial breath sounds were present throughout both lungs. Coarse, moist rales were present in the left subclavicular area; no friction rub was observed. The heart rate was 120 per minute, the sounds were distant, no murmurs were heard. The non-protein nitrogen was 70 mg. per cent. The blood serology was positive. The red blood cell count was 3,770,000 and the white blood cell count was 7,100 with 68 per cent polymorphonuclear leucocytes, 19 per cent lymphocytes, 6 per cent stabs, 4 per cent juveniles and 3 per cent mononuclears. The temperature was 100° F, following which it dropped to 99° at the time of death.

#### Pathological Examination

The autopsy was performed 5 hours following death. The anatomical diagnosis was as follows: Tularemic pneumonia involving both lungs; focal necrosis in liver and lymph nodes; pleural effusion, bilateral 100 cc; ascites 100 cc; bronchiectasis, acute and chronic, bilateral; pulmonary emphysema; fibrous pleural adhesions, bilateral; generalized atherosclerosis; old cerebral hemorrhage in the area of the left internal capsule; emaciation; dehydration.

The pulmonary lesion in this case was consistent with the diagnosis of tularemia; however, in the absence of a significantly positive agglutination reaction and the failure to demonstrate the organisms in culture, one might question the diagnosis. However, in view of the fact that one of the pathologists developed an ulcer on the finger, following by axillary lymphadenitis with an agglutination reaction of 1—1280 to *B. tularemia*, the original diagnosis of tularemia was confirmed.

#### Treatment of Tularemia

Many different forms of therapy have been used in the treatment of tularemia. The intravenous use of bismuth sodium tartrate has been advocated by Jackson (3). Bell and Kahn (4) treated laboratory animals with tularemia with sulfanilamide, sulfadiazine, sulfamerazine, acriflavine, metaphen, iodide and bismuth, trivalent arsenic alone, arsenic and bismuth, antimony, penicillin, and hyperimmune equine antitularemic serum. These investigators concluded from their experiments that none of these drugs had any appreciable effect upon the disease with the possible exception of penicillin.

Foshay, a long advocate of immune sera in the treatment of tularemia, recently reported that immune serum, if used very early and in a sufficient dosage, is of definite benefit and hyperimmune serum is more beneficial. However, in his more recent use of streptomycin it was found to be better than sera. Foshay says that "one half million units of streptomycin daily for two days, followed by one-fourth million units



daily for four days might well become the provisional basic dosage for human tularemia" (5). It appears at this time that streptomycin is the agent of choice for the treatment of human cases of tularemia.

### Diagnosis of Tularemia

A positive diagnosis of tularemia of course may be made either from a culture or by serum agglutination. The culturing of these bacteria is not practical, and furthermore, the handling of the organisms in a laboratory is not wise since many cases of tularemia have developed in laboratory workers (2). The agglutination titer may be too low to be significant before the twelfth day. An increase in the titer is significant. It may reach 1—1250 in the third week of the disease. Skin reactions to specific sera may be of diagnostic value.

The history of contact with wild rabbits is important in the ulcerative forms of tularemia. The disease is frequently transmitted to man by the deer fly (6), the wood tick and the rabbit tick. The ground squirrel, water rat, rabbit, dog and possibly sheep, muskrat, opossum, woodchuck and grouse may serve as animal reservoirs and possible sources of infection for many according to Moore (8). The common routes of infection for man are through the skin, conjunctiva and sometimes the gastro-intestinal tract. The incubation period is about three days. The disease usually runs its course from 2 to 3 weeks; however, some cases are sick from 2 to 3 months. The disease produces a lifetime immunity.

The leucocyte count is interesting in cases of tularemia. One would expect to find a leucocytosis accompanying the elevated temperature with the picture of sepsis, however 16 of our 26 cases had a white blood cell count less than 12,000. Four cases had a count less than 6,000. The highest count in the group was 19,800 and the lowest 2,800. These data show that the leucocyte count in tularemia has a tendency toward a leucopenia. This observation on the white cell count is different to the opinion expressed in some of the standard text books on medicine. Cecil (pp. 255) in discussing this point says "A slight to moderate polymorphonuclear leucocytosis may be noted during the course of the disease." Musser (pp. 91) states that "leucocytosis up to 15,000 is the rule;" Meakins (pp. 1254) says, "There is a mild leucocytosis with no significant change in the relative proportions of the various leucocytes." The differential diagnosis

in tularemia may be difficult in the presence of a leucopenia since the cell count is low in malaria, typhoid and in the American types of typhus (7).

Epitaxis and skin rashes occur in tularemia. Five of our cases had nose bleed and five had a purpuric rash. It is difficult to state the frequency of a rash in this group since some of the patients were given sulfa drugs which could have produced the rash.

### Discussion

The frequency of tularemia in the State of Arkansas and the marked increase in the mortality rate as observed in the series of 26 cases seen at the University Hospital, indicate the growing importance of this disease. The mortality rate varies from 3.7 to 11 per cent; however, in our group of cases it was 15 per cent (2) (9) (10).

There is a wide variation in the clinical manifestations of tularemia. The typhoid and pneumonic types of the disease may be confused clinically with several of the febrile diseases. The diagnosis usually may be made on the basis of the specific agglutination reaction; however, in fulminating cases the disease may not be recognized until the autopsy is performed.

No doubt there are cases of tularemia in which the disease is so mild that it passes unnoticed. Some of the patients included in this group show that tularemia may follow a protracted course for as long as 3 months. Such a prolonged disease as this becomes of growing economic concern to the people of the state.

*B. tularensis* is usually transmitted to man either through the handling of infected animals such as squirrels and rabbits, or through the bite of blood sucking vectors. The wood tick is considered to be the natural host and the organism is passed to successive generations of ticks by way of their eggs. The preservation of the wood tick by the prevention of forest fires may be a significant factor in the increased incidence of this disease.

*B. tularensis* usually enters the body through the skin and conjunctiva; however, cases have developed following the ingestion of infected meat insufficiently cooked. The primary lesion on the skin usually begins as a papule which is followed by ulceration of its center. A local lesion in the skin may develop within 48 to 72 hours following infection. It usually progresses to an ulcer with a firm and elevated margin and



a necrotic base. In a short time the regional lymphatics become swollen, painful and sometimes suppurate. Agglutinins usually appear in the blood during the second week of the disease and persist for an indefinite period.

Most of the cases of tularemia in this series were treated with sulfa drugs. The fact that a majority of these patients recovered is not indicative of the value of these drugs in the treatment of this disease. Bell and Kahn found that the sulfa drugs did not have any effect upon tularemia in experimental animals. No doubt there are many people who have this disease and recover without receiving any therapy. The more recent studies would indicate that streptomycin is the drug of choice in the treatment of tularemia.

### Summary

Tularemia is discussed from a clinical standpoint with regard to diagnosis and treatment. A group of 26 cases is reviewed from the University Hospital. These data would indicate that tularemia is becoming more frequent in Arkansas and the mortality rate is higher than previously reported in other states. A case is reported to illustrate each of the 4 types of the infection.

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## ROUND TABLE OF THE COMMITTEE ON MATERNAL AND CHILD WELFARE

I. F. JONES, M.D., CHAIRMAN

Fort Smith

The three major complications of obstetrics, namely: Toxemia, Hemorrhage and Infection, account for over 90% of the deaths that occur to the pregnant woman. Toxemia cases have been greatly reduced by prenatal care.

Every patient who is in labor should have her blood pressure taken at the beginning of labor and every few hours during labor. It is an excellent criterion as to her condition. She should also have her blood pressure as well as pulse taken, after delivery. If at any time the blood pressure falls below 100 systolic or the pulse goes over 100, then we must consider this patient in shock. Whenever we find a condition of shock without sufficient hemorrhage or other physical condition to account for said shock, then we should examine this patient carefully for an inversion of the uterus.

Inversion of the uterus is not a rare condition and is present far more often than we have suspected. If recognized early and proper treatment instituted, these patients should all be saved. So, the criterion is to recognize shock and to start hunting the cause and institute necessary treatment to combat it.

### Case No. 14

The patient was a 19-year-old primipara who was admitted to the hospital on April 23 at 9:00 A. M. in active labor. The personal and family histories were non-contributory. She was at term and the prenatal course had been uneventful until two weeks prior to admission when some elevation of blood pressure and edema were first noticed. The extent of the hypertension, weight gain and edema was not recorded.

On admission the blood pressure was 148 mm. systolic and 98 mm. diastolic and there was a moderate amount of ankle edema. Urinalysis was not done. The heart and lungs were normal on examination, the height of the fundus was 30 cm., the fetal heart was audible in the left lower quadrant, and the fetus in an L.O.P. position. On rectal examination the cervix was 4 cm. dilated and the presenting part at the level of the spines. Labor progressed without incident until 7:20 A. M. when the cervix was found to



be fully dilated and the fetal head on the perineum. Prior to this, the blood pressure was 140/90 at 11:15 P. M. and 140/90 at 4:30 A. M.

Under nitrous oxide, oxygen and ether anesthesia, a lateral episiotomy was performed and a full term living female child weighing 6 pounds, 7 ounces, was delivered at 7:21 A. M. after a total labor of 42 hours and 21 minutes. She was delivered by her private physician and according to the notes made by the hospital interne on the patient's history, the third stage lasted five minutes, during which time vigorous Crede' of the uterus was done associated with considerable pulling on the umbilical cord. The placenta and membranes were expressed intact accompanied by the loss of about 400 cc. of blood.

An ampule of ergotrate was given intravenously and another ampule intramuscularly. The episiotomy was repaired by 7:35 a. m. At this time the blood pressure was 95/55. The patient was returned to her room at 8:20 A. M. at which time no external bleeding was noticed. Ten minutes later, however, the pulse and blood pressure could not be obtained and the patient showed signs of marked shock. At 8:45 A. M. 500 cc. of 10 per cent glucose was started and at 9:10 A. M. morphine grains 1/6 was given. Nasal oxygen was started and at 9:20 A. M. plasma was begun.

The patient was seen by an obstetrical consultant at 9:30 A. M. She was in Trendelenberg position, her color was fair and she was able to answer questions rationally. However, her pulse was barely perceptible and her blood pressure was 60/35. Pressure on the fundus of the uterus caused the passage of several large clots of blood. The possibility of the existence of an inversion of the uterus was recognized and a sterile pelvic examination was decided upon. An ampule of pitocin was given by vein at 10:00 A. M. and an ampule of ergotrate intramuscularly at 10:30 A. M. The blood pressure at this time was 70/55. At 10:45 A. M. the sterile pelvic examination was done under light anesthesia and the fundus of the uterus was found to be inverted and protruding through the cervical os for a distance of about two inches. Manual replacement was surprisingly easy. Following this, the uterus was tightly packed with wet gauze. The entire procedure took about 15 minutes. Between 11:00 A. M. and 12:00 Noon, 500 cc. of whole blood was started. After receiving 100 cc. of this blood the patient had a severe chill and the blood was immediately discontinued.

At 1:00 P. M. the patient's temperature was 105 degrees F., her pulse was recorded for the first time since delivery at 180 per minute and the blood pressure was noted at 86/48. At 1:30 P. M. morphine sulfate grains 1/4 was given and by 2:00 P. M. the temperature was 106.8 degrees F., pulse rate 104, respiration 40 and blood pressure 84/68. At 2:30 P. M. adrenal cortex, coramine and ephedrine were given to the patient.

From this time throughout the night the patient remained in shock. Her temperature dropped to 102 degrees F., but at 6 A. M. the pulse was 168 per minute, she became quite cyanotic and, in spite of stimulants, she was pronounced dead at 7:30 A. M.

Postmortem examination showed the uterus to be large, soft and boggy. There was a soft depression on the anterior surface of the fundus where the inversion had taken place. On opening the uterus, the area of insertion of the placenta was found to be in the fundus of the organ.

**Discussion:** Inversion of the uterus is not a rare complication of labor. When it occurs it is usually associated with a fundal insertion of the placenta, a lax uterine wall, too much pressure from above and traction on the cord. A properly conducted labor, with good management of the third stage, makes this accident a rare occurrence. This particular patient was quite badly handled in that a diagnosis was not made until several hours after she had gone into shock, she was ill-advisedly returned to her room too soon after her delivery which was associated with considerable bleeding, and to top it off, she developed a severe transfusion reaction which may have been more responsible for her death than anything else. Whether the blood was poorly matched or whether the Rh factor was involved here, one can only guess. This was called a preventable death.

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## AMERICAN ACADEMY OF GENERAL PRACTICE

Members in forty-two states, the District of Columbia and Hawaii have been enrolled in the newly formed American Academy of General Practice, according to a statement issued by Dr. Paul A. Davis, Akron, Ohio, President of the Academy. Applications are being received at the rate of nearly 100 a week at the headquarters of the national association of general practitioners of medicine and surgery, temporarily located at 20 North Wacker Drive, Chicago



6, Illinois. Mac F. Cahal, Executive Secretary of the American College of Radiology, is serving as General Counsel and Acting Executive Secretary of the Academy of General Practice.

Doctor Davis, President, was last year chairman of the Section on General Practice of the American Medical Association. Other officers of the Academy are: Dr. E. C. Texter, Detroit, Vice-president; Dr. U. R. Bryner, Salt Lake City, Treasurer; Dr. Stanley R. Truman, Oakland, California, Secretary.

The American Academy of General Practice was founded June 10, 1947, in Atlantic City, by a group of men who believed that organized effort would best assure the preservation of the general practitioner as the foundation stone of the finest medical system the world has ever known. Numerous small groups of general practitioners throughout the country had organized, but general practice on a national scale had no voice. Therefore, the members and officers of the Section of General Practice of the American Medical Association, meeting out of official session at the San Francisco meeting in 1946, set in motion the machinery that culminated in the founding of the American Academy of General Practice at the 1947 convention at Atlantic City and into which all local groups have been united.

The Academy has no official connection with the American Medical Association except that members must be members of the American Medical Association. The Academy plans to support and cooperate with the A. M. A. in its high ideals and will also support every other group whose aims are unselfish and for the best interests of the public health.

The purposes of the Academy, as set forth in its constitution are:

1. To promote and maintain high standards of general practice of medicine and surgery.
2. To encourage and assist young men and women in preparing, qualifying, and establishing themselves in general practice.
3. To preserve the right of the general practitioner to engage in medical and surgical procedures for which he is qualified by training and experience.
4. To assist in providing postgraduate study courses for general practitioners, and to encourage and assist practicing physicians in participating in such training.
5. To advance medical science and private and public health.

To be eligible for membership a physician must be engaged in general practice. He must

be duly licensed in the state in which he practices, and must be of high moral and professional character. He must have at least one year of rotating internship at an approved hospital, or the equivalent in postgraduate training. He must have been in general practice for at least three years. (Special consideration is being given by the Membership Committee to military service.) He must have shown interest in continuing his medical advancement by engaging in postgraduate educational activities.

Since its inception the progress in organization has been remarkable. After only three months the membership is larger than all but the two or three largest specialty groups. By stimulating postgraduate study and establishing a standard of quality toward which all conscientious general practitioners will strive, the Academy will promote progress in general practice in much the same way the specialty societies have promoted progress among specialists.

"It seems obvious," said Mr. Cahal, "that high standards and progress among the family doctors, who render at least 85% of the medical care furnished in America, is the most important single goal for the medical profession today. Through the organization of the American Academy of General Practice the means for achieving that goal has been provided."

## OBITUARY

WILLIAM A. CRAIG, Eudora, aged 70, died August 10th after an illness of over two years. A graduate of the University of the South Medical Department in 1901, he first located at Grand Lake in Chicot County in 1912 and moved to Eudora in 1916. Surviving relatives are his wife, four sons and three daughters.

ALBERT MORTEN ELTON, aged 66 years, died at his office in Newport December 10th. Born at Yellville, December 21, 1881, he graduated from the University of Arkansas School of Medicine in 1906 and had studied at Tulane, the Mayo Clinic, in New York and elsewhere. He served with the Army Medical Corps during World War I. He was married to Miss Maude Lay in 1906, who, with a daughter and son, survive him. He was a member of the Jackson County Medical Society and of the Arkansas Medical Society and a fellow of the American Medical Association and of the American College of Surgeons. He was chairman of the Board of Directors of the First National Bank of Newport and a member of the Board of Trustees of Arkansas State Teachers College.



# THE JOURNAL

OF THE

## ARKANSAS MEDICAL SOCIETY

Owned by the Arkansas Medical Society and Published  
under direction of the Council

W. R. BROOKSHER, M. D., Editor  
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## EDITORIAL

### THE HARNESS REPORT

The increasing activity of federal agencies and departments in the field of national health insurance has been noted time and time again. House Report No. 786 entitled "Investigation of the Participation of Federal Officials in the Formation and Operation of Health Workshops," a report of a subcommittee of the House Committee on Expenditures in the Executive Departments, under the chairmanship of Congressman Forest A. Harness (Indiana), deals "exclusively with activities calculated to build up an artificial, federally stimulated public demand upon Congress for enactment of legislation for compulsory health insurance referred to by witnesses and publications as the Wagner-Murray-Dingell bill." The departments, bureaus and agencies of the federal government listed in the report as having participated in the campaign to socialize medicine are: (1) The U. S. Public Health Service; (2) The Children's Bureau; (3) The Office of Education; (4) The United States Employment Service; (5) The Department of Agriculture; and (6) Bureau of Research and Statistics, Social Security Administration.

Because of its importance to the practicing physician who would keep informed of the efforts of his government to institute compulsory health insurance, a copy of the Harness report has been mailed to each member of the Society.

It is urged that each physician carefully read this report.

## THE ARKANSAS HEALTH PLAN

CHAS. R. HENRY, M. D., Chairman  
Committee on Medical Service and Public Relations  
Little Rock

The enrollment of employed groups in the Arkansas Health Plan has gained considerable momentum, with some of the largest employers in the state evidencing definite interest in installing this program of surgical and hospital care for their employees.

Among groups which already have enrolled are the Southwestern Bell Telephone Company commercial department at Pine Bluff; Model Markets, Inc., at Little Rock; the Senior High School teachers of Little Rock; the Hiegle Lumber Company at Conway; the Shearman Concrete Pipe Company at North Little Rock, and the Temple Cotton Oil Mills in Little Rock and other locations.

Corresponding to the growth of enrollment has been an increase in the number of persons receiving service under the Plan. The honor of being the first physician to receive payment from the Plan for surgical services provided to a member went to the immediate Past President of the Arkansas Medical Society—Doctor H. King Wade of Hot Springs. Neither Doctor Wade nor the Plan had any part in arranging his distinction, since members of the Plan always retain full freedom in choice of physician.

A number of members of the Arkansas Medical Society have treated Plan members in the interim, but it still is expected that many months will elapse before enrollment becomes sufficiently widespread to affect a large proportion of the physicians of the state.

It has been pointed out that individual doctors can hasten the Plan's progress in their own communities by interesting patients who belong to eligible local groups. Such patients, or their employers or group officials, should be advised to write for full information to M. L. Daugherty, Director, Arkansas Health Plan, Waldon Building, Little Rock.

Complete details about the operation and cost of the program have been printed in previous issues of The Journal, but doctors who wish



these details in condensed form can obtain them from Mr. Daugherty upon request.

In addition to the interest of employed groups in the Arkansas Health Plan, broad participation of farm groups is growing out of the continued strong support of the Arkansas Farm Bureau Federation and other farm organizations. The large rural population of Arkansas makes this activity particularly important in extending the Plan's benefits to as high a percentage of the people as possible.

At the Farm Bureau Federation's state-wide convention in Little Rock several weeks ago, a featured position on the general program was given to discussion of the Plan. Speakers at this symposium included the chairman of the Joint Committee of the Arkansas Medical Society and the Arkansas Hospital Association, Mr. Moody Moore, president of the Hospital Association, and Mr. Daugherty.

Mr. R. E. Short, president of the Federation, also spoke at length on the Arkansas Health Plan, urging each County Farm Bureau Board to take immediate action to provide the Plan's services to their memberships. County-wide Farm Bureau enrollment was undertaken in Greene, White and Lincoln counties during November and December, and several other counties had similar enrollments scheduled for this month.

Overall progress of the Arkansas Health Plan between the opening of its Little Rock offices September 1 and the end of the year was rapid. It is expected that membership will rise sharply during the new year, and that the installation of new offices in other communities according to geographical service areas will soon become necessary.

### ARKANSAS HEALTH PLAN

#### Questions and Answers

- Q. What steps should be taken by an employer who is interested in enrolling his employees in the Arkansas Health Plan?
- A. The employer should contact the Arkansas Health Plan, Waldon Building, Little Rock, for complete information. The Plan will arrange for explanation of the service to the employees, will provide literature and other material, and will explain to the employer the method by which the employees' regular premium payments are deducted from their pay.
- Q. Is it necessary for the employer to pay the

cost of the protection for his employees.

- A. Some employers pay the entire cost for their employees and their enrolled family members. Some pay the cost for the employees only, permitting the employees to pay for family protection. Some employers make no contribution to the cost, but simply arrange pay roll deduction of the employee's contributions.
- Q. Can enrolled employees continue to carry membership in the Plan when they retire or otherwise leave employment?
- A. Yes. In such cases the employee makes quarterly payment at the individual rate directly to the Plan.
- Q. What can individual doctors do to help interest employers?
- A. Advise patients about the Arkansas Health Plan, suggest that they or their employers contact the Plan. Doctors who wish to do so can send the names of groups that might be interested directly to the Plan.

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### SCHOLARSHIPS ATTRACT YOUNG DOCTORS TO RURAL AREAS

What the various states are doing to attract young physicians to rural areas is described in an editorial in the December 13 issue of *The Journal of the American Medical Association*.

According to the Committee on Rural Medical Service of the A. M. A., "in Kentucky a scholarship fund was created in a campaign sponsored by the Kentucky State Medical Association and the University of Louisville School of Medicine. Within a few months \$150,000 was subscribed. From this fund loans for tuition are made to students who pledge themselves to practice after graduation in Kentucky's rural areas.

"The Indiana State Medical Association offers six \$500 scholarships annually to students who agree to practice in counties which the committee considers to be most urgently in need of medical service. The association bears the principal cost of these scholarships, although its scholarship committee is authorized to accept donations from other sources. While these scholarships are available only to residents of Indiana, the students are not compelled to attend school in Indiana.

"Alabama's program provides for one \$400



scholarship for each of the 67 counties in the state, and a student must first be admitted to the Medical College of Alabama before receiving a scholarship. The aim is to stimulate graduates to return to their local rural communities, but no commitment is required by the recipient concerning the location of his subsequent practice of medicine.

"The Medical Society of the State of Wisconsin is sponsoring a bill which would give financial aid to physicians in rural areas. Under this plan doctors would be appointed as special medical officers and would receive up to \$1,800 a year for part time public health service. A number of Wisconsin's graduates go into rural practice, as a result of a preceptor plan whereby students spend one-fourth of their senior year with general practitioners in the state.

"The House of Representatives of South Carolina last May approved the establishment of 14 scholarships at the state medical college. The recipient must agree to practice in a rural community for a time equivalent to that for which he receives the scholarship. Failure to carry out the agreement would require the recipient to repay the value of the scholarship, which is fixed at \$550 a year.

"The Mississippi State Legislature appropriated \$300,000 in 1946 for similar scholarships, with a maximum loan to students of \$1,250. In Mississippi since this program was inaugurated more than 250 applications and inquiries have been received.

"The University of Virginia Medical School has 10 scholarships for students who will prac-

tice in rural areas, and they are all now filled. These scholarships amount to \$550 each and the student after graduation must practice in a rural area for as long as he held a scholarship.

"The Committee on Rural Medical Service of the American Medical Association is continuing to receive additional reports and will present the summary to the House of Delegates at the Interim Session in Cleveland in January."

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### RANDOM THOUGHTS OF THE SECRETARY

December 3rd. Surgeon Hawkins' daughter was born in the hospital today only because the wife manifested skepticism over the surgeon's evaluation of the symptoms in the first stage of labor.

December 7th. This afternoon we drive to Camp "Dickinson" which is 10 miles west of Grannis and join Councilor Dickinson's deer-hunters for the opening day tomorrow.

December 8th. Celebrating our birthday in the vain effort to secure just one shot at an Arkansas deer and deprived of that chance but withal, a glorious day well away from the usual activities, only the piercing note of KCS Diesels and the Mid-Continent plane overhead bringing reminders that out beyond the Dierks pines lies another kind of a world.

December 15th. Comes a pleasant letter from Joe Lawrence with the Council on Medical Service in Washington and it begins to look as if the column took hold of a crusade when we chided the authorities over the plight of the Navajos.

December 19th. And it's "Luckies" to all today!

December 24th. Again, as the joyous season comes, the frictions of the everyday world diminish and die; there are cheery greetings; the harshness of existence becomes softened as if in reverie and, for one day, there is the eternal hope of "Peace on Earth; Good Will to Men."

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# TUBERCULOSIS ABSTRACTS

## *A Review for Physicians*

ISSUED MONTHLY BY THE NATIONAL TUBERCULOSIS ASSOCIATION

THERE probably never has been a period when a clear understanding of "activity" in tuberculosis was more important than now. The use of the miniature film technique by the military services and in industrial and community surveys has made the public "chest X-ray conscious." In mass X-ray surveys of apparently healthy groups, the majority of the cases of tuberculosis discovered are neither obviously active nor obviously healed but require extended study and observation to determine the presence or absence of activity.

### THE DIAGNOSIS OF ACTIVITY IN PULMONARY TUBERCULOSIS

There is no single word in the vocabulary of clinical tuberculosis more widely employed nor more widely misunderstood than the word "activity." The ancient fallacy still persists that rales arise in moisture, which signifies inflammation and hence, activity. Another more dangerous fallacy is that activity is usually accompanied by slight changes in temperature, pulse, weight, appetite and physical energy.

The two essential requirements of a scientifically sound and clinically useful concept of activity are that it must be securely based on the anatomic state of the tuberculous lesion and must also be synonymous with need for treatment. Such a concept must include three distinct groups of cases: those which show anatomic progression; those which are anatomically stationary but not healed; and those which are retrogressive but not yet safely healed.

In determining whether or not a case requires treatment, the symptoms, physical signs, laboratory data, and X-ray picture may all be used—or misused.

The symptoms of pulmonary tuberculosis are familiar to all physicians. When a group of them is present there is usually no doubt about activity. When only one or two of them are present they may be erroneously attributed to the minimal lesion shown in the X-ray film. Serial films are the only safeguard against this error.

A more common and more serious error is to exclude activity because of the absence of symptoms. It cannot be emphasized too strongly that tuberculosis, both in its onset, and during the early period of relapse, is characteristically a symptom-free disease. To depend upon symptoms, or to await the development of symptoms, is to lose the most favorable moment for treatment. Surveys have shown that when the diag-

nosis is based upon symptoms, 87 per cent of the cases will have advanced disease. Increasing numbers of hospital beds are filled with patients whose symptom-free, early disease was discovered in a survey or induction examination a year or so earlier, but who refused treatment and continued to work until they felt sick and had advanced disease. The public requires education on this matter; let us hope that most of it will be forthcoming from physicians.

Physical signs are of still less value than symptoms in determining activity. Inspection, palpation, and percussion are not to be trusted and auscultation is but little better. Coarse, or moderately coarse, moist rales, do usually indicate activity. They are often absent, even in far-advanced disease. Conversely, rales of the fine, or moderately coarse, dry type are often present throughout the entire life of a person with well-healed tuberculosis.

Like symptoms and physical signs, the laboratory helps us out by confirming a suspicion of activity, but does not exclude it. The finding of tubercle bacilli in the sputum, or in the gastric contents is always an indication for treatment and careful search should never be neglected.

Blood studies as a guide to activity are of little use to the doctor in practice. Most clinicians agree that the X-ray picture is a more accurate, sensitive, and dependable barometer of intrapulmonic weather than the blood picture.

The superiority of the X-ray film over other guides to activity in pulmonary tuberculosis makes it important that we recognize its limitations and use it to the greatest advantage. It requires little experience for anyone to learn to recognize the "soft" shadows, with indistinct borders which signify the active exudative, pathological reaction, and the "hard" shadows,



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partly or largely linear and with sharply defined borders, which signify a well-healed fibrotic reaction. Between these two extremes is a large group of cases in which the most experienced and expert interpreter will be unable to differentiate active from inactive disease by a single film. In these cases there is no substitute for the careful and detailed comparison of serial films made at intervals of one to three months.

In making comparisons of films it is important to keep in mind certain sources of error. The degree of exposure, the depth of inspiration and position of the patient in relation to the cassette may give illusory effects if the films being compared are not carefully checked for these factors. Slight differences in projection angles or changes in the position of the clavicles may reveal shadows which were partially concealed in the earlier film, thus giving the illusion of progressive disease or vice versa.

The Diagnosis of Activity in Pulmonary Tuberculosis (with case reports and illustrative films), Raymond C. McKay, M.D., *Postgraduate Medicine*, May, 1947.

### URETHANE PROVES TOXIC IN LEUKEMIA, PATIENT DIES

Urethane, a drug recently used with promising results in treatment of leukemia, sometimes called cancer of the blood because the white blood cells multiply too rapidly, is apparently more toxic in leukemia than is generally believed, John Joseph Webster, M. D., New York, warns in the December 6 issue of **The Journal of the American Medical Association**. He reports the second case in which a patient died after treatment with the drug.

Urethane, used chiefly in other diseases to relieve fever and spasms and produce sleep, has always been considered relatively safe and non-toxic. The first report of the effect of urethane in leukemia appeared in 1946. It revealed that the drug usually causes a decrease in white blood cells in this disease.

In the fatal case which Dr. Webster reports, the patient was treated with X-rays and later with daily doses of urethane. The drug was withdrawn because the patient developed complications, but he died within a short time—with his once-too-numerous white blood cells virtually non-existent.

"Urethane promises to be a valuable aid in the therapy of leukemia," Dr. Webster writes, "but the reports of untoward results warrant further investigation before widespread use is advocated."

### PERSONALS AND NEWS ITEMS

E. J. Easley, Little Rock, addressed the Arkansas Association of Social Work, District No. 5, at Texarkana, recently on "Future Plans and Present Developments in the Public Health Program of Arkansas."

R. E. Smallwood has been appointed director of District Health Unit No. 6, with headquarters at Fayetteville.

A post of the American Legion, all of the charter members of which were delivered by T. E. Rhine, has been chartered at Thornton.

Announcement that Dr. J. P. Gray has joined the staff of Parke, Davis & Company in the capacity of Medical Consultant to the Sales and Promotion Division, has been made by Harry J. Loynd, vice president of the company. Dr. Gray comes to Parke-Davis with an exceptional medical background. A graduate of Johns Hopkins University with an M.D. degree, and of the Harvard School of Public Health with an M.P.H., he served in public health work for many years, including posts with the United States Marine Hospital in New Orleans, the state of California and the city of San Francisco, and the Michigan Community Health Project of the W. K. Kellogg Foundation. He also is an educator, having lectured in public health at the University of California, served as dean of the School of Medicine of the Medical College of Virginia in Richmond, and also as dean of the School of Medicine, University of Oklahoma, and superintendent of the University hospitals.

Fred Hames, Pine Bluff, and Carl A. Rosenbaum, Little Rock, conducted a diagnostic cancer clinic at Jonesboro December 4th.

Erner Jones has moved from Brinkley and is now located at 930 Donaghey Building, Little Rock.

J. Donald Hayes, Little Rock, addressed the staff of Saint Joseph's Hospital, Hot Springs National Park, November 25th, on "Gastroscopy."

The following were registered at the Baltimore session of the American Medical Association: Hoyt R. Allen, Little Rock; C. A. Archer, De-



Queen; E. R. Browning, Hot Springs National Park; C. G. Hinkle, Batesville; M. F. Kelly, Little Rock; J. S. Levy, Little Rock; O. C. Melson, Little Rock; L. H. McDaniel, Tyronza; J. P. Price, Monticello; L. D. Reagan, Little Rock; A. R. Sparks, Little Rock; W. H. Toland, Nashville, and H. King Wade, Hot Springs National Park.

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BORN—To Dr. and Mrs. S. W. Hawkins, Fort Smith, a daughter, on December 3rd.

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Wm. H. Parker, formerly of Forrest City, is now located at Heidelberg, Mississippi.

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E. A. Mendelsohn, Fort Smith, and B. A. Rhinehart, Little Rock, attended the Boston session of the Radiological Society of North America in December.

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F. C. Maguire, Jr., has been elected surgeon of the Augusta post, American Legion.

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Hoyt R. Allen, Little Rock, was elected secretary of the Section of Proctology of the Southern Medical Association at the recent Baltimore meeting.

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Comdr. George W. Stocker is now stationed as radiologist, U. S. Naval Hospital, Guam.

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D. W. Goldstein, Fort Smith; Dorothy Goetze, Hot Springs National Park, and Ellis Cope, Little Rock, attended the recent meeting of the American Academy of Dermatology and Syphilology in Chicago.

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Members Fred H. Krock, Fort Smith, and Henry G. Hollenberg, Little Rock, attended the recent meeting of the Southern Surgical Association at Hollywood Beach, Florida. Present as invited guests were Vincent and Ruth Ellis Lesh, Fayetteville, and Robert Watson, Little Rock.

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Ellery C. Gay has been elected a director of the Little Rock Chamber of Commerce.

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M. V. Russell, El Dorado, attended the sessions of the American Academy of Ophthalmology and Otolaryngology in Chicago during October. The Journal was not advised of Dr. Russell's attendance at an earlier date.

## PROCEEDINGS OF SOCIETIES

Bradley County Medical Society has elected the following officers: President, Rufus Martin; Vice-president, Merl Crow; Secretary-treasurer, W. J. Hunt; Delegate, R. E. Grene, and Alternate, W. B. Reasons.

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Prairie County Medical Society has elected the following officers: President, Travis Matthews; Vice-president, G. M. Schuman; Secretary-treasurer, J. C. Gilliam; Delegate, J. C. Gilliam, and Alternate, Travis Matthews.

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Cross County Medical Society has elected the following officers: President, T. A. Peterson; Vice-president, L. E. Carson; Secretary-treasurer, J. W. Lamb; Delegate, A. F. Barr, and Alternate, Thos. Wilson.

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Conway County Medical Society has elected the following officers: President, C. E. Etheridge; Vice-president, J. F. Halbrook; Secretary-treasurer, J. O. Porter, Jr.; Delegate, H. E. Mobley, and Alternate, C. Ray Williams.

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Lincoln County Medical Society has elected the following officers: President, B. M. Gardner; Vice-president, C. W. Dixon; Secretary-treasurer, H. E. McEntire; Delegate, C. W. Dixon, and Alternate, C. W. Dixon.

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Boone County Medical Society has elected the following officers: President, Ross Fowler; Secretary-treasurer, H. V. Kirby; Delegate, O. B. McCoy; First Alternate, Ulys Jackson, and Second Alternate, Ross Fowler.

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Crawford County Medical Society has elected the following officers: President, Riley Cowan; Vice-president, C. B. Dixon; Secretary-treasurer, S. D. Kirkland; Delegate, S. C. Grant, and Alternate, S. D. Kirkland.

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Crittenden County Medical Society has elected the following officers: President, A. C. Parker, Sr.; Vice-president, Ralph B. Hamilton; Secretary-treasurer, Robert H. Ray; Delegate, L. C. McVay, and Alternate, A. C. Parker, Sr.

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The Chicago Medical Society will hold its Fourth Annual Clinical Conference at the Palmer House, Chicago, on March 2, 3, 4 and 5, 1948.

This conference represents an intensive four-day postgraduate course for the general prac-



itioner and specialist with leading teachers from all over the United States.

The morning and afternoon lectures, the panel discussions, the clinico-pathologic conference and the round-table discussions each noon will cover newer methods of diagnosis and treatment which will be of interest to all physicians. The scientific and technical exhibits will be of the highest quality and attractively presented.

The Chicago Medical Society is extending all physicians a most cordial invitation to come to Chicago for the conference. Reservations should be made direct with the Palmer House.

The Craighead-Poinsett County Medical Society was addressed December 4th by Fred Hames, Pine Bluff, and Carl A. Rosenbaum, Little Rock. Both speakers discussing cancer control measures in the state. Officers elected are: Paul T. Stroud, President; W. F. Shepherd, Vice-president; J. H. McCurry, Secretary-treasurer, and Joe Verser, Censor.

The Sebastian County Medical Society was addressed December 9th by S. Z. Faier on "Rhinoplastic Operations." Officers elected are A. S. Koenig, President; Carl L. Wilson, Vice-president; J. Kenneth Thompson, Secretary; Marlin B. Hoge, Treasurer, and I. Fulton Jones, Member, Board of Censors.

Dr. and Mrs. John P. McAlister entertained the Ouachita County Medical Society at dinner at their home in Camden December 11th. The program consisted of a symposium on "The Use of Hormones in Malignancy" given by Drs. Howard Schwander and H. N. Marvin of the University of Arkansas School of Medicine. The following officers were elected for 1948: President, Perry Dalton, Camden; Vice-president, C. R. Ellis, Fordyce; Secretary, R. B. Robins, Camden; Delegate, W. C. Magness, Camden, and Alternate, John P. McAlister of Camden. The next meeting will be held the first Thursday night in February in Fordyce and the program will be a symposium on diseases of the respiratory tract.

R. B. Robins, M.D., Secretary.

The Seventh Councilor District Medical Society met in dinner session at Hot Springs National Park November 11th. Speakers were Joe Reid, Arkadelphia, Chairman of the Committee on Rural Health, and H. Clay Chenault, Vice-president, University of Arkansas School of Medicine. Officers elected are: H. L. Brown, Malvern, Presi-

dent; J. P. Bremer, Point Cedar, Vice-president, and H. King Wade, Jr., Hot Springs National Park, Secretary.

The Howard-Pike County Medical Society has elected the following officers: President, H. H. Holt, Nashville; Vice-president, F. F. Ferguson, Nashville; Secretary-treasurer, M. D. Duncan, Murfreesboro; Delegate, W. H. Toland, Nashville, and Alternate, J. G. Waldrop, Nashville.

Washington County Medical Society has elected the following officers: President, R. W. Miller; Vice-president, Vincent O. Lesh, and Secretary-treasurer, John W. Dorman.

The Pulaski County Medical Society has elected the following officers: President, Henry G. Hollenberg; President-elect, T. Duel Brown; Secretary, W. J. Easley, and Treasurer, R. M. Blakely. Mr. Gaston F. Fulmer was reappointed Executive Secretary.

## STREPTOMYCIN

Council on Pharmacy and Chemistry, American Medical Association—November 29, 1947

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Paratyphoid fever

Acute and chronic leukemia

Amebic dysentery

Ulcerative colitis

Undulant fever

Coccidioidomycosis

Toxoplasmosis

Malaria

Histoplasmosis

Acute rheumatic fever

Poliomyelitis and all other viral infections

Disseminated lupus erythematosus

Blastomycosis

Localized lupus erythematosus

Moniliasis

Infectious mononucleosis

Syphilis

#### Toxicity

Large doses or administration of streptomycin for longer than two or three weeks not infrequently leads to toxic reactions of varying severity. The most frequent serious toxic reaction is impairment of function of the vestibular portion of the eighth cranial nerve. All degrees of impairment of vestibular function have been observed and this damage appears to be permanent. Compensation occurs in most patients, but total loss of vestibular function may severely handicap the patient. Loss of hearing, particularly to high frequencies, has also been observed and although often transitory may be serious. The occurrence of tinnitus is an indication for discontinuing therapy. Decreased kidney function and even anuria have been reported and occur most frequently in patients with previous kidney damage. Minor toxic reactions including pain at site of injection, urticaria and other cutaneous rashes are not infrequent following streptomycin therapy.

#### Administration

Streptomycin is supplied as a sulfate or hydrochloride salt in vials containing the equivalent of 1 Gm. of streptomycin base. The contents of the vial may be dissolved in sterile, pyrogen-free water or in isotonic sodium chloride solution to give a concentration of 100 to 500 mg. of streptomycin base per cubic centimeter. Although streptomycin is reasonably stable, solutions should be kept under refrigeration and should be prepared freshly each day.

#### Dosage

The dosage of streptomycin should be governed by the sensitivity of the infecting organism. In general, acute infections may be treated with a total dose of 2 or 3 Gm. daily, given in divided doses three to four hours apart. The drug should be given by intramuscular or subcutaneous injection. Oral dosage is ineffective, and intravenous administration may lead to undesirable side reactions. In chronic or less severe infections a daily dose of 1 to 2 Gm. may be sufficient to control the disease. In infections of the urinary tract success cannot be assured unless anatomic obstructions to urinary flow are removed. In mixed infections concomitant therapy with penicillin may be useful. Most infections due to susceptible organisms will respond within seven to 14 days of the initiation of treatment. Prolonged therapy of acute infections is usually useless and may be dangerous.

Intrathecal injections of streptomycin must be employed in meningeal infections. The total daily dose should not exceed 50 to 100 mg., and the concentration of the drug should not be greater than 50 mg. per cubic centimeter. Severe neurologic reactions are occasionally observed following intrathecal administration of the drug.

#### Streptomycin Resistance

Most susceptible organisms may rapidly become resistant to streptomycin. If therapy proves ineffective, an in vitro test of the infecting organism may reveal that it is resistant to high concentrations of streptomycin. In this event further streptomycin therapy will usually prove to be futile and undesirable.



# The JOURNAL OF THE ARKANSAS MEDICAL SOCIETY

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True, many of these respiratory diseases are not as dangerous as they used to be. (Modern infection-fighting drugs—such as penicillin and the sulpha drugs—offer highly effective treatment for many cases.)

But, of course, it is always better to *prevent* a serious illness whenever possible.

If you have a cold, it's just good sense to stay away

from people, to avoid spreading the infection; and to get plenty of rest—in bed if possible.

If your cold is accompanied by fever, a persistent cough, or a pain in the chest, face, or ear, call your doctor at once.

The sooner you seek his help, the more he can do to help you avoid a long and serious illness.

And, in the case of children, an early examination may disclose that what appears to be only a cold may instead be a starting symptom of an entirely different disease, such as measles or scarlet fever.

**SEE YOUR DOCTOR.** Never try the foolhardy experiment of dosing yourself. Your doctor's treatment of one illness may be quite different from his treatment of another illness which appears the same to you.

Let your doctor diagnose your ailments. Let him decide what treatment is best for your particular case. Then follow his instructions to the letter. His advice is the only advice you should take on any question that concerns your health.

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### TRENDS IN MEDICAL EDUCATION \*

H. CLAY CHENAULT, M. D.,  
Little Rock

Soon after the turn of the century, there were one hundred and fifty-eight (158) medical schools which in 1905 graduated five thousand, six hundred (5,600) doctors. In 1939 there were seventy-seven (77) medical schools with five thousand and eighty-nine (5,089) graduates. During the interim period between 1905 and 1939, there was a marked drop in the output of graduates, the lowest in 1922, when two thousand, five hundred and twenty (2,520) were graduated. During the early part of this century it became apparent to those who were interested in medical education that positive action would be necessary on the part of some agency to develop a system of medical education which would turn out a uniform product. In 1904 the Council on Medical Education and Hospitals of the American Medical Association was established and this agency has been instrumental in developing the yard stick by which the various medical schools of these United States function.

We hear and read of the difficulties which have confronted the University of Arkansas School of Medicine with regard to its relationship with the Council on Medical Education and Hospitals of the American Medical Association. I feel that the interest shown by this agency has been the stimulating influence which was necessary to bring our school up to the point in medical education that it presently occupies. I do not believe that those who were concerned in an inspectorial capacity in investigating our medical school were motivated at any time by any interest except the consuming desire to assist the State of Arkansas in developing a medical school which would turn out a product that would compare favorably with the product of other medical schools throughout the country.

The history of medical education in Arkansas

dates back to the founding of the original Arkansas Industrial University Medical Department in 1879. The history of the school is most interesting and high-lighted by the absorption of the School of Medicine by the University of Arkansas in 1911, at which time the University authorities saw fit to make each graduate of the school from its inception an alumnus of the University of Arkansas.

The University Hospital was obtained by contractual arrangements with the City of Little Rock in 1939 and is operated by the School of Medicine. This hospital serves a statewide function. Available statistics indicate that sixty percent (60%) of all admissions come from counties other than Pulaski County, and a recent survey indicated that practically all counties of the state have sent patients to the University Hospital.

The School of Medicine operates the Blood Bank, which serves a statewide function in making available blood plasma when needed. Periodically, blood donor teams will request donations of blood so as to keep a constant stock level of plasma at all times. At the present time this operation is being subsidized by the Maconic Grand Lodge of the State of Arkansas and interested local merchants. However, in the future this operation will be maintained from state funds.

Many research projects are under way at present in the medical school; funds for such projects are being derived from many sources. The school is in need of additional funds for research activities that are contemplated in the immediate future.

#### Present Problems of Medical Education In the State of Arkansas

As you well know, in general there are two types of medical schools in our country today: those that are operated from state funds and those operated from funds other than from state sources, such as endowments, grants and student fees. Information from various sources discloses that state supported medical schools have more applications for registration than they can possibly care for. The tendency on

\* Read before the 71st Annual Session, Arkansas Medical Society, Little Rock, April 18, 1947.



the part of state supported schools is to accept only residents of their state. Therefore, the remark that "a medical wall has been built around the State of Arkansas" appears to be aptly put. For your information we have on hand applications from two hundred and sixty (260) bona fide residents of the State of Arkansas, who wish registration in the next freshman class.

The choosing of the next freshman class at the School of Medicine presents a major problem for the school authorities. I am chairman of the Committee on Admissions and at the present time the school authorities are making a study, from which will be developed a system for the selection of the next freshman class. We are making an earnest endeavor to determine the attributes of the individual that are conducive to proper progress in the study of medicine. A mass of statistical data is being analyzed and correlations are being attempted, to take into consideration some of the following criteria: first, scholastic standing in premedical education; second, recommendations from the Premedical Advisory Committees of the various schools of the state; the Professional Aptitude Test; and certain weights and values that are given to military service and length of residence in the state. In connection with residency as it applies to admission to the School of Medicine, your Councilors and the Board of Trustees approved the following:

(1) For the purpose of considering applicants for admission to the School of Medicine, in so far as residency is concerned, the following policy adopted by the Board of Trustees of the University of Arkansas will guide the Committee on Admissions of the School of Medicine in the consideration of all applicants: "A resident of the State of Arkansas, in so far as the School of Medicine is concerned, shall be defined as one who has lived in the State of Arkansas at least two years prior to his (or her) initial registration for premedical work in any institution."

(2) Applicants from the University of Arkansas previously registered in schools other than the School of Medicine will, upon the recommendation of the Premedical Advisory Committee, be transferred to the School of Medicine, provided they meet all the requirements and have been favorably considered by the Committee on Admissions of the School of Medicine.

(3) Preference will be shown applicants who have obtained their secondary education in the schools of the State of Arkansas.

(4) All other qualifications having been met,

preference will be shown applicants who have been members of the Armed Services.

(5) Preference will be given to applicants with Baccalaureate degrees. A grade point average of 2.0 ("C") will be required of all applicants and scholastic attainments in premedical education will be recognized as an important factor in the selection of applicants by the Committee on Admissions of the School of Medicine.

(6) The Professional Aptitude Test sponsored by the Association of American Medical Colleges will be required of all applicants.

(7) No medical student will be favorably considered for advanced standing who does not meet the requirements and is acceptable for registration at the school from which he is transferring.

Recently the Board of Trustees approved extending the two-year premedical requirements to a three-year premedical requirement. Applicants for admission to the School of Medicine in the fall of 1948 will be required to have ninety (90) semester hours and to have fulfilled the basic premedical requirements of the School of Medicine.

Being conversant with the need of close liaison and relationship with the various schools of the state, the School of Medicine authorities have recently sent two members of the Committee on Admissions to these schools for the purpose of disseminating useful information to the school authorities and students as to the requirements of the School of Medicine. Such visits will be continued at periodic intervals, thereby developing a very close relationship between the School of Medicine and the state schools that are interested in premedical education.

In the recent past, difficulty has been encountered by the medical school authorities in maintaining the high standards of medical education required by the Council on Medical Education and Hospitals of the American Medical Association, principally because of the lack of hospital facilities for teaching clinical medicine and surgery. It has been found necessary to have a sufficient number of clinical beds under the control of the medical school for teaching purposes—our school has always been found deficient in this respect. The deficiency of clinical beds, however, is partly compensated for by a wealth of clinic patients, who are used for teaching purposes. The use of more full-time professors in the clinical years for teaching is being strongly considered by the medical school authorities.



The proposition of specialty training is another problem which confronts us. If the yardstick established by the various specialty boards is applied to our state, we find that we are woefully deficient in properly trained specialists. We believe that the School of Medicine, the University Hospital and the Memorial Hospital can make a real contribution and assist the other hospitals of our state in the training of specialists in the various fields of medicine and surgery; and plans are being undertaken, by properly conceived residency training programs, to prepare specialists in the following branches of medicine and surgery: medicine, surgery, obstetrics, gynecology, neuropsychiatry, pediatrics, radiology and pathology.

The State of Arkansas has suffered in the past because of its inability to assimilate graduates of our medical school in a proper training program for interns. If there is developed within our state, in accordance with recommendations made by the Hospital Survey Committee appointed by our Governor, a system of hospitals, which conceivably might allow rotation of recent graduates of the medical school throughout the various regional type hospitals of our state, this would accomplish several objectives: (1) the proper training of recent graduates in the various fields of medicine and surgery by a large interested group of physicians, (2) it would allow the recent graduate to become better acquainted with the physicians of the state, and (3) during this period of training, it is conceived that those concerned would determine the place in which they could locate for the practice of medicine.

Another matter which is being considered by the medical school authorities is the development of a two-year internship, which is directed primarily to the training of interested recent graduates in the general practice of medicine. Such graduates should be much better prepared to compete with the difficulties encountered by the general practitioner in the practice of his profession.

Arkansas needs physicians in rural areas and rural areas must lend assistance to interested young physicians in establishing a practice in these rural areas. It is believed that perhaps some remuneration other than that obtained from patient sources may be necessary to influence physicians to settle in these regions. The rural areas manifestly must provide the tools by which the physicians work: by this, I mean properly equipped medical facilities, good roads and

a way of living which promotes happiness in one's work.

One of the problems in the past, as far as the school operation is concerned, has been the inability to obtain a sufficient amount of money. This, I am happy to say, is one problem we can view in retrospect as I believe that, with the full wholehearted cooperation of the members of the Arkansas Medical Society, University authorities, the Board of Trustees of the University of Arkansas and the citizenry of our state, a sufficient amount of money will be made available in the future for continuing the operation of the medical school at a high level of efficiency. It is believed that, with the augmentation of the present facilities of the University Hospital by the projected construction of a Memorial Hospital, the security of the present high rating of our medical school will be insured.

One of the problems which has not been previously mentioned is the shortage of technicians skilled in clinical laboratory procedures and radiology. The Councilors deemed it expedient that the School of Medicine develop a system of training wherein properly qualified high school graduates could be taught, within a reasonable period of time, clinical laboratory methods and radiographic technic so that they could be utilized by the doctors of the state. In this plan it was believed advisable to have such students sponsored by a physician and, as soon as such individuals made suitable progress and were considered properly trained, they would return to the physician who sponsored their training and assist him in his practice. Such a plan is being carefully considered at this time; it is believed that, if a sufficient number of instructors can be obtained, it will be practical to put this plan into operation sometime this year.

One of the dangers confronting medical education in our country is pressure groups who would increase the total student load by lowering medical school standards.

#### Plans for the Future

In the preceding paragraphs, we have discussed some of the problems confronting the medical school at present, and I believe it proper at this point that we discuss some of the plans for the future of the medical school. You are aware of the constructive legislation that affected the future of the medical school during the last Assembly. It is stimulating to realize the interest shown by the various state officials and members of the Legislature along medical lines. One million dollars (\$1,000,000) was appropri-



ated from Public Institutions Funds for the purpose of constructing a hospital to be operated by the School of Medicine. An additional six hundred thousand dollars (\$600,000) was appropriated from State Construction Funds to be used for the construction of a Memorial Hospital. These two funds, making one million, six hundred thousand dollars (\$1,600,000), will be merged to build a Memorial Hospital in proximity to the present medical school. The exact site of this hospital has not been fully determined at this time. It is believed that sufficient priority can be developed to obtain certain federal monies to aid in this construction. In any event, we see two million, four hundred thousand dollars (\$2,400,000) at present to be used in the construction of this hospital.

It was gratifying to have the wholehearted approval of the Pre-budget Legislative Committee in connection with our operating budget for the biennium. As you all know, the operating budget of the medical school was contained in the budget of the University of Arkansas and the total funds available during the biennium fall short of the amount requested by the University authorities so that it appears the operating budget of the medical school will be cut about seven per cent (7%). However, we feel by effecting a more economic operation we will be able to continue with few exceptions as planned.

An organizational plan has been perfected. This plan basically divides the responsibilities of the school and hospital operation under three major heads at directorate level. The titles of these three directors are Director of Administration, Director of Hospitals and Clinics, and Director of Schools. The duties of the Director of Administration are those concerned specifically with administration. He is responsible for the purchase, storage and issue of all supplies and equipment and serves the other directors in all matters of administration. He operates the business office and is responsible for all personnel except academic personnel.

The second director is the Director of Hospitals and Clinics. This individual is responsible for the operation of the Isaac Folsom Clinic and all matters which involve the professional care of the sick while in the hospital.

The third director is the Director of Schools. He is responsible for the operation of the various departments of the school as they relate to the teaching of medicine. These departments in the basic science years consist of: Anatomy,

Bacteriology, Biochemistry, Physiology and Pharmacology, and Pathology; and in the clinical years: Medicine, Surgery, Obstetrics, Gynecology, Pediatrics, Neuropsychiatry and Radiology. He is responsible for the development of the planned program of teaching, which involves the scheduling of the various subjects and development of a sound medical educational system. He is also responsible for the operation of the various technical schools.

Your attention is invited to the fact that neuropsychiatry has been elevated to departmental level as it is believed that this important subject should be given more weight in the teaching of medical students. In the construction of the Memorial Hospital it is planned to develop an acute treatment center for mentally disturbed patients. Experience of psychiatrists throughout the country indicates that a large percentage of those who are mentally ill may be rehabilitated by proper treatment if such treatment is started within a reasonable period from the time of onset of the disease. In this connection it is planned that the School of Medicine work in very close cooperation with the State Hospital for Nervous Diseases and with the Veterans Administration.

This organizational plan was submitted to the Board of Trustees and approved by them in March, 1947.

It has been thought desirable by some to develop within the structure of the Memorial Hospital a cancer pavilion, specifically devoted to the treatment of indigent cancer cases. Such a cancer pavilion would not interfere in any way with the present plans of the Arkansas Cancer Control Commission in developing diagnostic centers and treatment centers throughout the state but would serve only those who were referred from such centers and those cases from the immediate surrounding territory.

Under consideration at the present time is a school of nursing, to be operated in connection with the Memorial Hospital. Presently considered is a five-year school of nursing, the first two years of training to be given in the various schools of the state which are accredited for such training. These two years will be devoted to pre-nursing training and similar to the pre-medical course now given. The last three years will be devoted to the practical phases of nursing and the basic sciences of medicine. Upon the completion of such training, qualified candidates will be eligible for a Baccalaureate degree in nursing. The Board of Trustees at a recent



meeting authorized the Medical School Committee to undertake a study in conjunction with the Arkansas Nurses' Association to perfect a plan by which such a nursing school can be established.

Through the good offices of the State Board of Health a pilot project is being developed, which will serve a two-fold purpose in pediatrics, that of pediatric instruction both to students and to graduates and a statewide program developed to increase the level of medical care for children.

Under consideration by the Board of Trustees and the school authorities is the proposition of student housing, which would include housing for nurses in training in the Memorial Hospital. Such a project, if consummated, would be developed through a bond issue.

The Veterans Administration is faced with a manpower shortage of properly qualified professional men to staff both the hospitals which are presently in operation and those which are to be built. Initially, officials of the Veterans Administration decided that the building of all future units for medical and surgical care of beneficiaries of the Veterans Administration would be in close proximity to medical schools so as to take advantage of the medical schools' staffs both in the basic science years and in the clinical years. When the medical and surgical Veterans Administration hospital is built here in Little Rock, it is believed through the Dean's Committee that the medical school will take a very prominent part in the treatment of patients in this hospital.

The Board of Trustees recently selected as President of the University of Arkansas, Dr. Lewis Webster Jones, now President of Bennington College, Bennington, Vermont. Dr. Jones has shown an intense interest in medical education and in the past has been on several national committees for the purpose of studying certain medical problems. I feel sure that the relationship between the School of Medicine and the parent University under the able leadership of Dr. Jones will be most intimate and that the School of Medicine will prosper under his leadership.

In closing, may I again thank you and your officers for the splendid, wholehearted cooperation which has been shown me and other school authorities in assisting us in our program of medical education. The seeds sown now will reap a rich harvest in the future.

## NITROGEN MUSTARD TREATMENT IN CHRONIC MYELOGENOUS LEUKEMIA

WILLIAM H. SIDDON, M. D.<sup>1</sup>  
and BENJAMIN B. WELLS, M. D.<sup>2</sup>

Evaluation of nitrogen mustards in the treatment of malignant diseases has advanced more rapidly during the past year than is indicated by the small number of available published reports. Our own experience in the use of these drugs has not been extensive, but it will allow certain reasonable conclusions to be drawn. Many expressions of active interest in this subject from physicians throughout the state indicate the desirability of reporting our current progress in observing the actions of these chemical agents.

Use of the beta-chloroethyl amines in the treatment of malignant diseases was suggested by Gilman and Philips (1). This suggestion was based upon the discovery that these chemical substances exert an effect in tissues which is in many respects similar to X-ray irradiation. They can be administered intravenously in doses not severely toxic, and they tend to damage selectively tissues in active proliferation. The most marked effects are on the blood forming organs and the gastrointestinal tract. Action of the nitrogen mustards in suppressing the lymphoid organs and other elements of the hematopoietic system and their rather selective influences against rapidly growing cells immediately suggested their use in treatment of the malignant lymphomas and leukemia. Reports from several groups (2), (3), (4), (5), (6), now permit at least the following generalizations to be tentatively drawn:

(1) The drug of clinical choice is methyl-bis (beta-chloroethyl) amine. This is a crystalline substance, readily soluble in saline, and, with certain precautions, it may be safely administered intravenously. The usual dose is 0.1 mg per kilogram of body weight to be given daily for four to six days.

(2) When carefully administered, the drug produced only minor systemic reactions.

(3) Favorable responses have been obtained against the local and systemic manifestations of Hodgkin's disease, lymphosarcoma and chronic lymphocytic leukemia. Published results in the

<sup>1</sup> Instructor, Department of Medicine, University of Arkansas School of Medicine, Little Rock, Arkansas.

<sup>2</sup> Director of Education and Research, M. D. Anderson Hospital for Cancer Research, Houston, Texas.



treatment of other malignant diseases are generally discouraging.

(4) The most favorable reports of the use of nitrogen mustards are those in the treatment of Hodgkin's granuloma. It is of special interest to note that gratifying responses have been obtained in cases which had become insensitive to X-ray treatment, and in some of these the sensitivity to X-ray was re-established by a course of nitrogen mustard therapy.

(5) The acute leukemias of all types fail to show favorable response to these chemicals. Results with chronic lymphocytic leukemia have been promising, but not spectacular. Reports on the treatment of myelogenous leukemia are not favorable.

We have had opportunity to observe the effects of nitrogen mustards in the treatment of cases representing practically all types of malignant lymphoma and the various types of leukemia. Our findings in general conform quite closely to those already contained in the literature, and it would not be useful to give the detailed expression here. However, a review of the published reports referred to above indicates that our results in the management of chronic myelogenous leukemia are somewhat unique, and we believe that the following brief case reports will be of interest. In each of these, a course of nitrogen mustard therapy consisted of four, daily, intravenous administrations of 0.1 mg per kilogram of body weight of methyl-bis (beta chloroethyl) amine. This material was made available to us through the Committee on Growth of the National Research Council by Merck and Company.

W. T., colored male, age 45, was admitted to the hospital on 17 January 1947. The spleen and liver were greatly enlarged, but there was no palpable lymphadenopathy, but there was count was 289,500; the erythrocyte count was 2,470,000. The white cell differential count and sternal marrow findings were characteristic of chronic myelogenous leukemia. There had been no previous treatment. Nitrogen mustard therapy was begun on 19 January 1947. The only untoward reaction was slight nausea beginning about one hour after each of the intravenous injections and lasting for about one hour. The white cell count decreased to 230,000 after one week at which time the patient was discharged from the hospital. There was no change in the size of the spleen or liver, but there was considerable subjective improvement. When he returned to the out-patient department on 31 January 1947, the white cell count was 109,000. There was still no perceptible change

in the size of the spleen and liver. However, there had continued to be subjective improvement and the patient had returned to light work. Without further treatment the patient returned for observation on 19 February 1947 at which time the white cell count was 52,800. The differential count was still characteristic of chronic myelogenous leukemia, but there were fewer blast cells than had been noted at the time of former admissions. The red cell count was now 3,820,000 and the hemoglobin 62 per cent of normal. The patient felt much better, was eating well and was continuing to do light work. When he was again observed on 5 March 1947 the white cell count was 43,000; the red cell count 4,110,000 and the hemoglobin 80 per cent of normal. The general condition remained good, but the spleen and liver were still enlarged. His only complaint was referable to splenomegaly.

C. S., a colored female, age 48, was first seen at the University Hospital on 19 May 1945. She was weak, emaciated and anemic. The spleen and liver were markedly enlarged. The white cell count was 450,000, and the differential count and sternal marrow study confirmed the diagnosis of chronic myelogenous leukemia. The patient responded well to a course of X-ray therapy, and did not present herself for re-examination until 9 November 1946. At this time, the first course of nitrogen mustard therapy was administered. A second similar course was begun on 27 November 1945. The white cell count at the beginning of the first course was 517,000; at the beginning of the second course it was 440,000. At this time there was only slight improvement in the patient's general condition.

Two weeks after the second administration of nitrogen mustard, the white cell count was 95,000, and there was moderate improvement in the patient's general condition. No change, however, was observed in the size of the spleen or liver. She was discharged from the hospital on 15 December 1946. On 7 January 1947 she again returned to the outpatient department. On this occasion the white cell count was 270,000. The spleen and liver remained enlarged, and it was felt that her general condition was somewhat less satisfactory than at the time of her recent discharge from the hospital. X-ray treatment over the splenic area was administered. Two weeks later her white cell count was 7,000, the size of the spleen was considerably reduced and her general condition improved. She was again admitted to the hospital on 25 August 1947. At this time she had high fever and her general condition was



obviously poor. The spleen and liver were greatly enlarged and a large amount of ascitic fluid was present. The white cell count was 254,000 with a large number of immature forms, and the red cell count was 1,910,000. The standard course of nitrogen mustard therapy was administered. One week later the white cell count was 82,000 and the following week it was 49,000. During this interval the red cell count increased to 2,490,000.

The fluid was removed from the abdominal cavity and effusion did not recur. The patient's general condition was markedly improved. On 15 September 1947 another series of nitrogen mustard injections was begun. Following this, her white cell count was 38,500 and the differential count showed a considerable decrease in the number of immature cell forms. There was considerable nausea and vomiting during the last course of therapy. When the patient was discharged from the hospital on 26 September 1947 her general condition was greatly improved, her appetite was good, and there was no ascites or edema of the lower extremities. The white cell count was 31,000.

M. F., white female, age 45, entered the hospital with findings typical of chronic myelogenous leukemia. The white cell count was 200,000, and the differential count and sternal marrow pattern were characteristic of chronic myelogenous leukemia. The spleen was greatly enlarged and the liver moderately so. Immediately following a course of nitrogen mustard therapy there was moderate subjective improvement, but the blood count and physical findings were not significantly altered. She was examined one month later without subsequent therapy at which time the white cell count was found to be 40,000. There was considerable subjective improvement, and her only complaint was referable to splenomegaly. Two months later the white cell count was 180,000, but her general condition remained good. The size of the spleen and liver had not changed. We did not feel that the patient should be treated again at this time, and have failed to contact her subsequently.

There is no reason to suppose that the ultimate course of chronic myelogenous leukemia in these or other patients is reversed or that the results obtained are any more encouraging than those commonly anticipated with X-ray therapy. There can be no doubt, however, that nitrogen mustard administration in each of these patients was followed by a gratifying response which included subjective improvement, a moderate increase in hemoglobin and red cell count, a marked

decrease in white blood cell count, and, in one instance, the disappearance of edema and ascites. It must be noted that the liver and spleen did not decrease in size as might have followed X-ray treatment directly over the infiltrated organs. Since splenomegaly and other infiltrative phenomena have often been a source of considerable complaint in our patients, we suggest that some reasonable combination of the two forms of therapy may be useful. The administration of nitrogen mustard alone in these cases where the full benefits of X-ray had not been previously obtained appears to be justified only by the information afforded in these studies.

We were particularly interested in the fact that red cell counts increased significantly in the leukemia patients following nitrogen mustard therapy. The decrease in white cell count, although more dramatic, is of less clinical significance. In observing leukemia of all types we have not felt that the white cell count is a suitable indication for therapy. It is far safer to be guided in the estimation of the patient's condition by observing the systematic reactions, fever, malaise, and weight loss, or by noting the degree of anemia which invariably accompanies and quite accurately reflects the severity of the leukemic process.

We have not yet had time and opportunity to form a judgment concerning the duration of nitrogen mustard effects in chronic myelogenous leukemia. It appears likely, however, that here, as in Hodgkin's disease, the remissions produced by the chemical are of shorter duration than those which usually follow X-ray therapy. This fact, if established by further observations, will militate against its use except as an adjunct to irradiation treatment.

Perhaps it will not be out of order to add a word of warning for those who may wish to use the nitrogen mustards. These are highly toxic substances, and the therapeutic dosage is based upon a narrow margin of safety. The greatest precautions must be taken to prevent the solutions from contact with the patient's skin or from escaping into the tissues about the vein. Even with these precautions some workers have reported severe local complications and venous thromboses. In our series thus far we have had no such unfortunate incident. The systematic reactions have not been dangerous, but they are at least as severe as the sickness which follows X-ray irradiation. Blood counts must be checked frequently, since there is a very real danger of producing a fatal leukopenia. The fact that the full manifestation of the bone marrow suppression may not be evident for



almost a month after a course of nitrogen mustard indicates that one must be cautious in advising re-treatments.

**Summary:** The present status of the nitrogen mustards in the treatment of malignant disease is briefly reviewed. Report is made of three cases of chronic myelogenous leukemia which were treated with methyl-bis (beta-chloroethyl) amine. The results are of some interest, but arouse no great enthusiasm for this form of therapy. It is suggested that the combination of X-ray and nitrogen mustard treatment may be expected to produce more beneficial effects than either of the two when applied alone.

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## DIAGNOSIS OF RESPIRATORY VIRUS INFECTIONS \*

JAMES T. CULBERTSON

Professor of Bacteriology and Parasitology,  
University of Arkansas School of Medicine,  
Little Rock

Comparatively simple tests have been devised in recent years for the laboratory diagnosis of certain respiratory virus diseases—namely, influenza and primary atypical pneumonia. Both of these diseases are important in Arkansas. During 1947, the State Division of Communicable Disease Control reported 25,026 cases of influenza for Arkansas, nearly all of these occurring during the months of February, March, and April. Records are not available on the number of cases of primary atypical (virus) pneumonia for the state, although it is significant that two patients with virus pneumonia came to autopsy in University Hospital in recent months, both being reported to the Clinical-Pathological Conference of December 13, 1947, at the School of Medicine. Because of the continuing importance of these infections in the state a short review of the laboratory diagnostic procedures useful as aids in identifying cases of each of these diseases is appropriate at this time.

### INFLUENZA

The laboratory methods for diagnosing influenza are directed either toward identifying the presence of the influenza virus itself, in the patient's respiratory secretions, or else demonstrating in the patient's blood serum an antibody specific for the influenza virus.

#### Tests for Presence of Virus

The presence of influenza virus in nasal or throat washings from patients can be demonstrated either by infection of laboratory animals, or, better, by cultivation of the virus in chick embryos. Thus far, direct infection of animals with influenza virus has been accomplished only with chimpanzees and ferrets,<sup>1</sup> although ferret-adapted strains can later be passed to white mice.<sup>2</sup> Animal inoculation is not, then, a practical approach to the routine laboratory diagnosis of this disease. By the inoculation of the allantoic fluid of 4- or 5-day-old chick embryos with bacteria-free filtrates of nasal or throat washings of influenza patients, on the other hand, one can often recover the virus.<sup>3</sup> This last procedure is highly useful for detect-



\* This is the first in a series of articles to be published in *The Journal* by arrangement with the faculty of the School of Medicine.



ing the presence of the influenza virus since the materials required are easily procured and the methods simple and effectual. The amount of virus which develops in the allantoic fluid of the inoculated eggs can be estimated quantitatively because of the remarkable and distinctive property of this virus to agglutinate *in vitro* the red blood cells of the chicken.<sup>4</sup> This agglutinating effect, which is known as the Hirst phenomenon, can be seen when the infected allantoic fluid is mixed with chicken red cells either in the usual agglutination tubes or else on a microscope slide.

#### Demonstration of Antibody for Influenza Virus in the Bloom Serum of Patients

With convalescence from influenza, antibody specific for influenza virus appears in the blood of patients. This antibody will passively protect mice or other susceptible laboratory animals, including chick embryos.<sup>5</sup> But what is more important from the point of view of laboratory diagnosis, the antibody will inhibit in the test tube the agglutination of chicken red cells by the influenza virus.<sup>6</sup> This inhibition of agglutination is demonstrable by mixing the patient's serum with influenza virus and then adding this mixture to a suspension of fowl red cells—or, according to a new technic developed at the Army Medical School, to a suspension of human type O red cells.<sup>7</sup> It is possible to titrate *in vitro* the antibody formed by a patient against influenza virus by determining the least amount of serum which will produce such inhibition. This inhibiting antibody occurs normally in the blood of most persons in low titer, but following an attack of the disease, a transient rise in titer generally occurs. A rise in the antibody titer also follows vaccination with influenza vaccine.

#### Different Immunologic Strains of Virus

Although all known strains of influenza virus can be expected to agglutinate chicken red cells, the serums of patients convalescent from influenza sometimes inhibit agglutination by one strain of virus but not by another. This failure to act alike with all strains of influenza virus has been clearly shown to result from the existence of immunologically distinct strains of the virus. A patient will produce antibody only against that strain of virus with which he becomes infected. It is possible then, by means of the inhibition of agglutination reaction to identify the precise strain of virus which elicited antibody in any given patient. Thus far two immunologically distinct types of influenza virus have been identified—Types A and B—and still other types are suspected to exist. So far as the writer is aware, the type, or types, responsible

for the cases of influenza in Arkansas during 1947 has not been determined.

#### PRIMARY ATYPICAL (VIRUS) PNEUMONIA

Thus far, diagnostic methods directed toward isolating or otherwise demonstrating the virus of primary atypical pneumonia are still in the experimental stage. It has been clearly shown, however, that most patients with this disease develop autohemagglutinins (cold agglutinins) at or near the end of the febrile period, their agglutinin titer when tested at 0°C usually reaching 1-160 or 1-320.<sup>8</sup> Since with no other respiratory disease are cold agglutinin titers of this level demonstrable,<sup>9-10</sup> the cold agglutination test is useful as a laboratory technic for identifying cases of primary atypical pneumonia. Oddly, high titers of cold agglutinins are seen also in certain tropical parasitic diseases—namely, trypanosomiasis and leishmaniasis.<sup>11</sup>

#### Comment

As an aid to physicians in the State of Arkansas, the Department of Bacteriology of the University of Arkansas School of Medicine plans to establish by February 15, 1948, for a trial period of three months, a laboratory for the diagnosis of influenza and primary atypical pneumonia. This laboratory will be under the supervision of Helvecio Brandao, M. D., Assistant Professor of Bacteriology in the school. It is hoped that the physicians of the state will avail themselves of this service by sending serum samples (5cc) from patients suspected to have either influenza or primary atypical pneumonia with the request that the serum be tested for the corresponding antibody. These serum samples should be mailed to:

Respiratory Virus Laboratory,  
Department of Bacteriology,  
University of Arkansas, School of Medicine,  
Little Rock, Arkansas.

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## ROUND TABLE OF THE COMMITTEE ON MATERNAL AND CHILD WELFARE

I. F. JONES, M. D., Chairman,  
Fort Smith

The majority of deliveries in Arkansas are done by general practitioners. This is true today, and will be true for many years, because Arkansas is essentially an agricultural state.

Whenever the general practitioner runs into some complication which necessitates Caesarean section, he usually takes it in to the surgeon with whom he is best acquainted. Unfortunately, the general surgeons in most localities are still doing the classical section. It is time that the general surgeon in whatever locality he may be, should become acquainted with and learn to do the low cervical section. Especially, in all those cases which must be considered potentially infected. By so doing, he will be able to lower his mortality for sections and be able to enlarge his field of usefulness in surgical obstetrics.

The following case is taken from the Maternal Mortality Reports:

### Case No. 24

The patient was a thirty year old white multipara who was admitted to the hospital during her eighth month of pregnancy for the purpose of inducing labor because she had a premature rupture of the membranes.

On admission on February 6 her temperature, pulse and respirations were normal. One attempt at a medical induction of labor with castor

oil, quinine and nasal pituitrin was unsuccessful. On the following day an X ray of the abdomen was taken which showed a single fetus, apparently weighing between 4 and 5 pounds, which appeared to be presenting partially by the vertex with both feet lying near the pelvic inlet and one hand lying beside the head. It was immediately decided to deliver the patient by Caesarean section and accordingly a classical section was done on February 7 at which a premature child weighing 4 pounds 11½ ounces was delivered.

The day following the operation the patient's temperature rose to 101.3 degrees Fahrenheit and her pulse rate remained around 130 per minute. The second day after delivery the highest temperature was 101.5 degrees Fahrenheit and the pulse continued rapid. About this time the patient became greatly distended and began to vomit. Treatment with glucose and enemata, Wangenstein drainage and pituitrin did not relieve the distention. On February 10 the highest temperature was 105.4 degrees Fahrenheit, the patient's course went steadily downhill and on the following day she died.

No autopsy was obtained.

DISCUSSION: Space does not permit the enumeration of every indication for which the writer has seen a Caesarean section performed. It is so often utilized as a way out of a difficult situation by the attendant without adequate obstetrical training, and in some parts of the country is one of the most abused operations performed. Deaths from infection and hemorrhage in association with abdominal delivery play a large role in the total story of maternal mortality. Perhaps we should all go back and read again the century-old writings of Oliver Wendell Holmes and Semmelweis to impress more firmly upon our minds how easily the generative tract may be invaded with microorganisms. Surely the attendant responsible for this patient's death must have heard or read somewhere that it is not considered good obstetrics to do a classical section on a patient with membranes ruptured for several days. Would it be asking too much of our readers to believe that there are still scores of surgeons and even some so-called obstetricians who do a classical section at all times because they have never learned to do the low cervical and extra-peritoneal operations and who pay little attention to established indications for or contraindications to abdominal delivery? Yes, there is still need for better obstetrics in many sections of the country!



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EDITORIAL

THE ARKANSAS HEALTH PLAN

CHAS. R. HENRY, M. D.,  
Chairman, Committee on Medical Service  
and Public Relations,  
Little Rock

Public acceptance of the Arkansas Health Plan after the first few months of its operation is in many ways even broader than had been originally anticipated.

Not only is enrollment in the Plan evidencing a steeply rising curve, but even more important is the fact that the Plan already is known in virtually every corner of Arkansas. Since the educational work is of basic importance and must be well-advanced before it is reflected in membership figures, the present statewide interest in the Plan augurs rapid expansion during 1948.

How this educational program has been forwarded will be of interest to many members of the Arkansas Medical Society because Arkansas doctors everywhere have shared personally in it and because it is advancing the day when the Plan will be a substantial and beneficial element in medical practice throughout the State.

A good example of Plan educational activity has been that connected with farm and rural enrollment. Only a few weeks after the opening of the Plan's offices early in September, representatives of the Arkansas Medical Society, the Arkansas Hospital Association, and the Plan itself, appeared before a meeting of the Arkansas Farm Bureau Federation.

There had been, of course, a number of preliminary contacts with farm groups and farm leaders, and these culminated in the endorsement and active support of the Plan by the Federation.

The first County Farm Bureau to complete the enrollment of its membership in the Plan was that of Lincoln County. Mr. Ross Kehey, president of the Lincoln County Farm Bureau, and Mr. J. D. Hawley, secretary, were assisted in the project by Mr. Robert Schroeder, County Extension Agent.

Announcement of the Lincoln County Bureau's enrollment program was published in a full-page notice in the county newspaper, and this notice was reprinted and placed in every rural mail box in the county.

The collecting of applications then was undertaken by a committee of 28 persons under Mr. Hawley. This committee canvassed 17 communities with the support of ladies of the Home Demonstration Clubs in each area.

There are approximately 500 Farm Bureau members in Lincoln County; the enrollment totalled approximately 390 persons. These newly enrolled members of the Arkansas Health Plan become entitled to payment toward the costs of surgical care according to a liberal schedule, and to payment of the complete hospital bill for up to 120 days of care.

Meanwhile, other County Farm Bureaus have become actively interested in the same type of enrollment, and the Arkansas Farm Bureau Federation has scheduled a full report of the Lincoln County project in the Federation's official publication.

In some respects the Arkansas Health Plan is better known in rural areas than it is in metropolitan communities. To farm folk throughout Arkansas it has offered for the first time a solution to long-standing economic problems of health care. By paying small regular amounts to the Plan, these farm families will have their hospital bills paid for them immediately whenever they need care and also will receive liberal allowances toward the expenses of surgery.

As enrollment in the Plan spreads further through rural areas, it is obvious that there will



be a sound economic basis for expanding and improving the Arkansas system of hospitals. Doctors practicing in farm regions will have no worry about the ability of Plan members to afford both hospitalization and needed surgery.

As will be remembered by those who have followed the development of the Arkansas Health Plan, it was the desire to promote the Plan in rural as well as metropolitan areas that decided the Joint Committee upon the selection of a single underwriter, which became the John Marshall Insurance Company. Sponsorship of a program underwritten by a number of companies would inevitably have concentrated enrollment activity in the more heavily populated communities where enrollment is easiest and most rapid.

The spreading of the Arkansas Health Plan into farm communities is even more extensive than indicated here, and expansion in metropolitan areas likewise is accelerating notably. For example, the Plan was scheduled to receive the attention of the Arkansas State Association of Chamber of Commerce Secretaries at a meeting which was to be addressed by Mr. Moody Moore, president of the Arkansas Hospital Association, and Mr. M. L. Daugherty, director of the Plan.

One Chamber of Commerce—that at Forrest City—already has approved the Plan and is sponsoring the enrollment of all eligible groups in its area as a civic project.

Planter-members of the Arkansas Agricultural Council, with headquarters at West Memphis, are being urged to enroll their employees in the Plan, and Mr. Harvey Adams, the Council's secretary-manager, is keenly interested in the program.

Employees of the State Extension Service Department of the University of Arkansas throughout the State also were scheduled for enrollment in the Plan. Additional recently enrolled groups include the civilian employees of the Veterans Administration at Texarkana, the school teachers at Pine Bluff, Harding College at Searcy, the Fish Motor Company at Dumas, and others.

Much of the progress of the Plan has resulted from the direct interest of individual physicians who have familiarized themselves with the Plan and have suggested to leaders of local groups that they investigate its possibilities. Mr. M. L. Daugherty, director of the Arkansas Health Plan, Waldon Building, Little Rock, is glad to supply full information at any time.

Despite the extreme distribution of interest throughout the State, the staff of the Arkansas

Health Plan has managed to keep abreast of its commitments. As soon as is justified by the growth of enrollment, the Plan anticipates the expansion of its staff and the opening of additional offices at strategic locations elsewhere in the State.

The period of basic education is undoubtedly the most difficult of all for the Arkansas Health Plan, for it requires the covering of great areas of interest before the staff is organized and developed to the point that yields the greatest efficiency of effort. Since the Plan had been in operation for only four months up to the end of 1947, however, it is considered that it has made remarkable progress thus far.

## ARKANSAS HEALTH PLAN

### Questions and Answers

Q. How can physicians enroll themselves, their families and their associates in the Arkansas Health Plan?

A. A group can be formed by the County Medical Society, thus enabling doctors, their eligible family members, and their employees to enroll.

Q. What can an individual doctor do to expedite extension of the Plan's benefits to members of his County's Farm Bureau?

A. Suggest to the County Farm Bureau officers and to the County Extension and Home Demonstration Agents that they ask the Little Rock office of the Arkansas Health Plan to explain the program to the Board of the County Farm Bureau or to a general meeting.

Q. Physicians in our section of the State are interested in the Arkansas Health Plan. What can we do to explain this service to our local people?

A. Educational material which can be readily used by doctors is in the process of development. The best approach, however, will always be through the individual doctor's conversations with employers, planters and Farm Bureaus. They should be urged to communicate with the Arkansas Health Plan, Waldon Building, Little Rock.

Q. Some small communities have no established groups or businesses that are large enough to enroll. How can the residents of such communities obtain membership in the Plan?

A. It is possible to form a community group sponsored by a local civic club or organization. The Little Rock office of the Arkansas Health Plan will be glad to work out the details.



## A. M. A. DEMANDS HOUSECLEANING OF DOCTORS WHO ACCEPT KICKBACKS

In an editorial appearing in the January 17 issue of "The Journal of the American Medical Association," the board of trustees of the A.M.A. calls upon leaders of the medical profession to act promptly in ridding the medical profession of physicians who accept rebates, kickbacks and commissions.

The editorial follows:

The pride of medicine as a profession has always been its freedom from the taint of barter and trade in the sick patient. Physicians must give their wholehearted devotion to the care of the patient; no other objective must be given precedence over considerations of the patient's need. Nevertheless, the charge is made that some physicians have forgotten the ethical principles that prevail in the relationship between doctor and patient and have selected the surgeon willing to make the greatest division of fees rather than the one best suited to perform the operation. Ophthalmologists have sent the patient for lenses to the optician who returned a proportion of the fee rather than to the optician who rendered the highest quality of optical service. Occasionally orthopedic surgeons and others who utilize the work of the maker of braces, splints and elastic bandages have been willing to accept commissions from such manufacturers and have delegated the procurement of these accessories to the agency offering the largest commission rather than to the one most painstaking in production and most reasonable in price. From time to time criticism has been leveled against pharmacists who have offered commissions to physicians on the prescriptions sent to them and to the physicians who have accepted such commissions. Wherever barter and trade have insinuated their insidious and evil aspects into the practice of medicine, the quality of the service has depreciated. The morals of the physicians and the commercial agencies that deal in these unwholesome profits in this marketing of medical care have already deteriorated.

From the beginning of its entrance on the medical scene, the American Medical Association has fought this menace to the quality of medical service and to the good repute of medical practice. Resolutions have been passed by the official bodies of the association unequivocally condemning such practices. The Judicial Council has repeatedly urged the expulsion or other action against physicians proved to have participated in such procedures. The leaders of

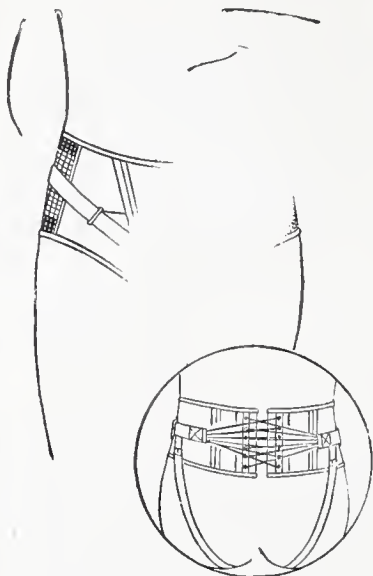
surgery, ophthalmology, orthopedic surgery and pharmacy have been unanimous in pointing out the extent to which such commercial considerations may break down the good repute of the specialties concerned. The American College of Surgeons adopted an oath to be taken by its fellows to the effect that they would not participate in the secret division of fees. The Principles of Ethics of the American Medical Association have declared the unethical character of such divisions—direct or indirect.

Now the development of greater complexity in medical practice and in medical relationships has introduced new factors into this problem of barter and trade. The development of roentgenology (X-ray examination and treatment) as an important medical specialty and the establishment of clinical pathologic laboratories to which physicians send patients for the making of highly technical and often costly tests have introduced new sources of rebates, kickbacks and commissions. In some communities means have been proposed for evading the condemnation of medical organizations and societies through the establishment of corporations, cooperative laboratories and roentgenologic offices of multiple ownership.

As might have been anticipated, the ultimate development was recognition by governmental agencies of the fact that the unprotected public was being exploited by such methods. The first warning and one of tremendous significance was the indictment by the Department of Justice of two manufacturing optical agencies and of a considerable number of ophthalmologists who participated in a plan which took hundreds of thousands of dollars from unknowing patients. A full report appeared in "The Journal of the American Medical Association" when the Department of Justice took this action during 1946. A popular periodical with millions of circulation has called on the medical profession to cleanse itself as it has repeatedly cleaned its own house in the past. The house of delegates asked the secretary of the American Medical Association to call the situation to the attention of every state and county medical society in the nation and to urge on these societies the initiation of the necessary steps toward ridding medical practice of these parasites. The Better Business Bureaus in several large communities, notably Los Angeles, have begun a campaign of enlightenment of the public regarding the extent to which these abuses prevail in their communities; they too have called on the medical profession to take the necessary steps to stop this pernicious practice.

The housecleaning has been too long delayed.





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K 12	12 "	6 "	7 "

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Biology has proved that any living organism that tries to maintain itself in the presence of filth invariably dies. The board of trustees of the American Medical Association therefore calls on leaders of the medical profession in every community in which the association is represented to act promptly, remembering, however, the necessity for proceeding in due form by the filing of formal charges against physicians known to be participating in such methods, thus offering an opportunity for the presentation of evidence and a suitable hearing so that the innocent may not be harmed but the guilty may be properly exposed and punished.

The editorial is signed by the complete board of trustees and by the officers of the American Medical Association.

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### POSTGRADUATE COURSE

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After a lapse during the war years, the Committee on Postgraduate Study has announced revival of its activities in sponsoring an annual course in postgraduate instruction for Arkansas physicians. The 1948 course will be held at the University of Arkansas School of Medicine February 19th and 20th. Detailed programs will be mailed to all members in advance of the meeting.

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### LABORATORY DIAGNOSIS

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Members are reminded of the offer of the Department of Bacteriology, University of Arkansas School of Medicine, to provide laboratory diagnosis in suspected influenza and primary atypical pneumonia cases occurring in the state. This service will be inaugurated on a three-months trial basis by the medical school in its program of assisting Arkansas physicians in every possible manner. Further information on procedure to secure this laboratory service may be obtained in Dr. Culbertson's article in this issue, "Diagnosis of Respiratory Virus Infections."

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### RANDOM THOUGHTS OF THE SECRETARY

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January 1st. Our own comments on the Bowl Games today: With Arkansas and William and Mary it was now-you-have-it and now-I-have-it \* \* \* The Pacific Coast Conference must not look happily on that contract with the Big Nine which runs until 1951 \* \* \* and, the "Steers" certainly fell on Alabama.

January 3rd. Arriving Cleveland after a full night in the air or waiting to get there, Louisville to Cleveland, to bed at five this morning, to be awakened by McCaskill's cheerful voice at seven: "Are you there?" And so,

the rest of the day to wait the pleasure of the Judicial Council, some of whose members regard lightly a call to meet at ten in the morning of an announced date, in manner like unto minor committee sessions rather than an important body of the national medical organization.

January 5th. Truman takes the New Deal off ice today and surely there is no physician in this land of ours now who does not fully understand that the Democratic party is fully committed to national health insurance.

January 8th. Despite our roentgenological diagnosis and Foltz' clinical and operative diagnosis of acute appendicitis, Koenig was not called on to furnish a gross pathological report, especially in capital letters, of "NORMAL APPENDIX."

January 13th. Tonight Sebastian County members make merry in annual banquet session, the guests being few in number but most high in quality. If those photographs we take turn out satisfactorily, it is probable that we will be "turned out."

January 11th. By rail to Little Rock where the committee engages in the unaccustomed activity of attempting to choose an executive assistant from letter applications.

January 15th. By air today to meet with the Cancer Commission finding that the appropriation to provide hospitalization will soon exhaust itself but hopeful that means will be found to continue the program for the medically indigent.

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### PERSONALS AND NEWS ITEMS

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The following attended the Cleveland session of the American Medical Association: R. B. Robins, Camden; L. H. McDaniel, Tyrone; Joe Roberts, D. A. Rhinehart, Little Rock, and L. J. Kosminsky, Texarkana.

C. C. Long has been elected a director of the Ozark Chamber of Commerce.

Capt. Homer A. Higgins, M. C., U. S. N. R., has been appointed commanding officer of the Volunteer Reserve Component, Naval Medical Corps, Little Rock.

Howard S. Stern is now located at 600 West Sixth Avenue, Pine Bluff.

BORN—On January 1, 1948, a son to Dr. and Mrs. Byron Z. Binns, Eudora.

Paul L. Mahoney, Little Rock, attended the recent meeting of the Southern Section, American Triological Society.

B. C. Clark has been elected president of the Bank of Lake Village.

Sam Phillips, Little Rock, attended the Dallas meeting of the American Academy of Pediatrics during December.



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## PROCEEDINGS OF SOCIETIES

Benton County Medical Society has elected the following officers: President, J. L. Pickens; vice-president, K. A. Siler; secretary-treasurer, G. C. DeBolt; delegate, G. W. Love, and alternate, S. M. Wilson.

Hempstead County Medical Society has elected the following officers: President, Jim McKenzie; vice-president, W. L. Sims; secretary-treasurer, E. H. Wilkes; delegate, L. M. Lile, and alternate, G. E. Cannon.

White County Medical Society has elected the following officers: President, T. L. Adair; vice-president, P. R. Rodgers; secretary-treasurer, S. J. Allbright; delegate, Hugh Edwards, and alternate, A. H. Hudgins.

Faulkner County Medical Society has elected the following officers: President, John Sneed; vice-president, N. E. Fraser; secretary-treasurer, I. N. McCollum; delegate, R. L. Taylor, and alternate, E. L. Dunaway.

Searcy County Medical Society has elected the following officers: President, E. G. Fendley; vice-president, W. T. Moore; secretary-treasurer, J. O. Leslie; delegate, H. G. Hall, and alternate, S. G. Daniel.

Independence County Medical Society has

elected the following officers: President, R. L. Calaway; vice-president, W. H. Calaway; secretary-treasurer, Paul Gray; delegate, Rector C. Hooper, and alternate, O. J. T. Johnston.

Cleveland County Medical Society has elected the following officers: President, J. H. Scroggins; vice-president, B. E. Dunman; secretary-treasurer, W. G. Hancock; delegate, W. G. Hancock, and alternate, J. H. Scroggins.

Ashley County Medical Society has elected the following officers: President, W. A. Regnier; secretary-treasurer, L. C. Barnes; delegate, R. W. Hipsley, and alternate, L. E. Fitch.

Polk County Medical Society has elected the following officers: President, E. M. Miers; vice-president, C. A. Campbell; secretary-treasurer, H. N. Rogers; delegate, F. A. Lee, and alternate, E. M. Miers.

Sevier County Medical Society has elected the following officers: President, R. C. Dickinson; vice-president, C. A. Archer; secretary-treasurer, C. E. Kitchens, and delegate, C. E. Kitchens.

The Craighead-Poinsett County Medical Society was addressed January 1st by James O. Cooper, St. Louis, on "The Uses of Sulfa Drugs, Penicillin and Streptomycin in Diseases of Chil-

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dren." The motion picture, "Managing Fresh Wounds of Violence," was shown.  
J. H. McCurry, Secretary.

The Benton County Medical Society met in dinner session at Siloam Springs January 8th for the following program: "Hypertension," Kenneth A. Siler.  
G. C. DeBolt, Secretary.

WOMAN'S AUXILIARY NEWS

Reviewing the history of the American Medical Association, the state president of the Woman's Auxiliary of the Arkansas Medical Society, Mrs. W. J. Hunt, Warren, addressed the Sebastian County Auxiliary January 12th at a luncheon at the home of the Auxiliary president, Mrs. Fred H. Krock, Free Ferry road. Her theme was "The American Medical Association Century of Progress."

At the business session, Mrs. Krock appointed a nominating committee composed of Mrs. I. Fulton Jones, chairman, Mrs. J. S. Southard and Mrs. D. W. Goldstein. Musical selections were played by Curtis Krock, violinist, son of the Auxiliary president, and Dr. Krock. The young mu-

sician was accompanied on the piano by his teacher, Maurice Derdeyn.

Present besides Mrs. Hunt and the local president were Mrs. L. A. Whittaker, Jr., and Mrs. John Ben Stewart, assistant hostesses, and Mrs. I. Fulton Jones, Mrs. E. C. Moulton, Mrs. S. J. Wolferman, Mrs. W. R. Brooksher, Mrs. Mabel Scott, Mrs. J. S. Southard, Mrs. S. P. Stubbs, Mrs. Walter Eberle, Mrs. Carl Wilson, Mrs. E. A. Mendelsohn, Mrs. Ralph Crigler, Mrs. Wright Hawkins, Mrs. Ralph Kramer, Mrs. A. S. Koenig, Mrs. C. H. Kennedy, Jr., Mrs. Ben H. Pride, Mrs. John D. Olson, Mrs. Stanley Gates, Mrs. W. L. Shippey, Mrs. J. Kenneth Thompson, Mrs. B. L. Ware, Mrs. Thomas P. Foltz, Mrs. Charles T. Chamberlain, Mrs. D. W. Goldstein, Mrs. H. C. Dorsey, Mrs. Arthur F. Hoge, Mrs. A. A. Blair, Mrs. Charles S. Holt, Mrs. M. E. Foster, Mrs. W. F. Rose, and Mrs. S. P. McConnell of Booneville.

The state president left January 13th for her home. She was the guest of her husband's mother, Mrs. C. M. Hunt, 814 North Thirty-sixth street, during her stay here.

Mrs. W. F. Rose, Chairman  
Sebastian County Medical  
Society Auxiliary.



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University of California  
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# The JOURNAL OF THE ARKANSAS MEDICAL SOCIETY

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No. 10

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## Some things you should know about operations

No. 210 in a series of messages from Parke, Davis & Co.  
on the importance of prompt and proper medical care.

OF ALL THE RECENT ADVANCES in medical science none have been more dramatic than those in surgery and the fields related to it. Take appendicitis, for instance.

Not very many years ago, having your appendix out might have meant a fairly long and uncomfortable hospital sojourn, followed by several tedious weeks of getting back your strength. And with it all you might have had good reason to fear such complications as peritonitis or pneumonia.

Nowadays, except for a few rare cases, the removal of an appendix is not considered a serious operation. And many operations which were considered of major seriousness as recently as 1930 are now often relatively simple.

Because of notable advances in training and surgical skill, many of the risks have been almost eliminated. Complications following operations are far less common. And most patients recover in a shorter time, and with less discomfort than formerly.

Such progress in surgery has been hastened by significant developments in four important fields.

**1. Anesthesia.** The administration of anesthetics has become a specialized science. New anesthetics have been developed—less toxic, less upsetting to respiration and heart action. With modern anesthesia the patient has a far easier time when undergoing surgery. Post-operative nausea and vomiting, which were previously almost taken for granted, are now much less frequent.

**2. Infection-fighting drugs.** Peritonitis, once feared as a frequent complication of abdominal surgery, today is uncommon. The use of such agents as the sulfa drugs and penicillin—in treatment or to guard against it—has almost eliminated many of the infections which formerly constituted the greatest dangers in surgical procedures.

**3. Early ambulation.** Doctors have found that getting patients out of bed soon after operations not only speeds recovery, but also prevents many of the discomforts formerly suffered. Bowel and urinary functions are quickly restored. Gas pains are usually avoided. It is not unusual nowadays for a patient to be well enough to go home from the hospital in less than ten days after a major operation.

**4. Body Nutrition.** One of the problems in surgery has been that the condition which makes an operation necessary is usually one which has depleted the patient's nutritional reserves, and therefore lessens his ability to recover promptly from the operation itself.

In recent years, however, medical science has broadened its knowledge of body nutrition.

Today, it is possible to determine in what a patient's body is deficient—whether he needs whole blood, vitamins, salts, carbohydrates, protein.

Each of these elements can be replaced—making it far easier for the patient to go through an operation. Post-

operatively, also, recovery is hastened by supplying the body's needs in easily assimilated form.

**SEE YOUR DOCTOR.** Give him your complete confidence at all times. If he advises an operation, follow his recommendation promptly. With modern surgery, with modern hospital care, you have little reason to be afraid.

Remember, too, that when surgery is indicated, a delay may be dangerous. Prompt action is likely to give you a quicker recovery—and an easier one!



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### EARLY AND LATE POSTOPERATIVE AMBULATION\*

JOHN H. PINSON, JR., M.D. and  
GEORGE M. WEBB, M.D.  
El Dorado

Many postoperative complications of surgery can be prevented by getting the patient out of bed at an early hour. The practice of early ambulation was first advocated by Ries<sup>1</sup> in 1899. It had been noted that infants and children who had been operated upon suffered no ill effects after operation in spite of the fact that it was frequently impossible to keep them confined to bed. The same observation was made on animals and insane persons. At that time he stated that "the period for which it was advisable to confine such cases (surgical patients) to bed should be counted in hours instead of days." Apparently little attention was paid to these observations until the past few years, during which time the exponents of early ambulation have become more and more numerous. From the accounts in the literature all who have employed it have been enthusiastic and show no tendency to reversion to the standard method of bed rest following surgery.

The hazards of prolonged rest in bed, as well as the advantages of early ambulation have frequently been brought out.<sup>2 3 4</sup> A brief resume of some of these facts is as follows:

1. **Wound healing:** It has been shown experimentally that early activity following abdominal section definitely hastens wound healing. Newburger<sup>5</sup> showed in experiments on rats, that the strength of laparotomy incisions was as strong on the fifth day in animals who had been exercised as it was on the 10th day in unexercised animals. It has been noted clinically that there is less incidence of wound disruption following early ambulation than when patients

are kept in bed for prolonged periods." It is well known that wounds closed with catgut are at their weakest on the fifth to ninth day which has been the usual period of ambulation. Therefore, it appears logical that early ambulation would speed up wound healing and should be allowed at a time when the sutures are at their strongest.

2. **Thrombosis and embolism:** Pulmonary embolism usually occurs between the third and thirteenth post-operative day, and usually coincides with the time the patient is first allowed up. This usually follows a phlebothrombosis, which is usually a silent process, and is more prone to occur in the lower extremities. This, of course, is more apt to occur if the patient has been confined to bed and has been inactive, and is due to venous stasis and lessened circulation time. Several days later the patient is allowed up which causes a thrombus to break loose, resulting in pulmonary embolism. Early ambulation, before thrombosis has had a chance to occur, allows for muscular contraction, especially of the muscles of the calf and feet, and this is a big factor in preventing thrombosis. It has been shown also, that the circulation time is markedly increased, as much as 250%, as a result of muscular contraction of the lower extremities, and therefore, with a quickened flow of blood, there is less possibility of venous thrombosis.

3. **Pneumonitis and atelectasis:** Hypostatic pneumonia has long been one of the most dreaded complications of surgery in the aged.<sup>6</sup> General anesthesia, as well as the excessive use of opiates favors stasis, which in turn predisposes to infection. With early ambulation there is better aeration of the lungs, and an increase in the amount of tidal air. The standing posture relieves the pressure of the abdominal contents on the diaphragm, allowing for easier breathing, and coughing is made easier, thus decreasing the chances of atelectasis. It has been reported that the incidence of such complications has been reduced by as much as 75-80%.<sup>7</sup>

4. **Urinary retention:** The number of patients

\*Read Before Seventy-First Annual Session, Arkansas Medical Society, Little Rock, April 18, 1947.



requiring catheterization is reduced if the patient is allowed to walk to the bathroom or stand by the side of the bed.

5. **Asthenia:** With use, muscle tone returns to normal much sooner than with disuse. With improved circulation there is less tendency to vasomotor instability and an asthenic state.

6. **Psychologic aspect:** Although many are reluctant to get out of bed at first, with proper encouragement and demonstration of results in other patients, they will usually do so. They have then achieved a mental victory and begin to have an increased desire to get well quicker. They require less nursing attention and may even be given small tasks to do themselves, which keeps their minds occupied and is good occupational therapy.

7. **Finally,** the patient is usually discharged from the hospital earlier and is able to go back to work sooner, resulting in less cost to him, which is an important factor in the majority of patients. Also hospital beds are made available sooner for other patients.

**Present study:** The purpose of this study is to assimilate and evaluate data for comparison of early with late ambulation. Patients were selected consecutively, all types of laparotomies and hernias being included. By early ambulation is meant those who were out of bed and walking within 72 hours. It is very important that the patient walk and not just get up into a chair. Either catgut or cotton sutures were employed for closure, catgut being used in 57 of the cases and cotton in 251. The use of catgut was not considered a contraindication to early ambulation, although cotton was preferred. Table I lists the different operations and the type of ambulation used, and the number of complications for that type of operation. In Table II are tabulated the differences between the ambulatory and the bed patients. It will be seen that the average number of post-operative hospital days for the ambulatory patients was 9.3, while it was 11.8 for the bed patients. The average day of ambulation in the first group was 2.04 days while in the second it was 7.2. There was little significant difference in the average temperature between the two groups, although the fact that the bed patients were in the hospital longer would probably lower their average temperature. By asthenia is meant more than the average amount of weakness post-operative. There were 41 cases in the early

group and 67 in the late, this of course being a personal estimate. Nausea and vomiting occurred in 20 cases in each group. However, there were several in the late group who had suction tubes in. Enemas or laxatives were required by 83 of the early group and by only 50 of the late group. There were 8 cases of distension in the early group while there were 14 in the late group. Six ambulant patients required catheterization. Two more had an indwelling catheter left in place after the operation. The only vascular complication encountered in the early group was one case of thrombophlebitis, which occurred on the ninth post-operative day in a panhysterectomy for choriocarcinoma. There were two cases of thrombophlebitis in the bed cases, one in a ruptured appendix and one in a gunshot wound of the abdomen. There were two cases of phlebothrombosis in cancer patients for which femoral ligation was done in one of them. One of these developed a pulmonary embolus.

The one case of atelectasis in the early group occurred on the first post-operative day in a Caesarean section before she was ambulant. Two of the cases in the late group occurred on the second post-operative day in gunshot wounds of the abdomen. There were two others of a milder degree, one in a prostatectomy and one in an appendectomy. There were two cases of pneumonia in the ambulant patients and four in the bed patients, one of these being present on admission in an appendectomy. There was one lung abscess in a case of ruptured appendix, this being in one of the patients who had thrombophlebitis.

The one wound disruption occurred in a patient with widespread carcinoma of the abdominal cavity. Seven of the wound infections listed in the table were in prostatectomy wounds and were mild.

**Comment:** Although some of the patients were too sick to get out of bed, and the nature of their illness made them more prone to the development of complications, it is believed that this series, although relatively small, indicates the advantages of early ambulation. Peritonitis, unless well localized, paralytic ileus, shock, and debility from anemia and hypoproteinemia or toxicity were considered contraindications.

### Summary

I. A comparative study of 308 cases of early and late post-operative ambulation is presented.



2. It has been shown that early ambulation hastens wound healing. Although not an absolute preventative, it aids in preventing vascular and pulmonary complications. Muscle tone and a feeling of well-being are restored sooner, and the period of hospitalization shortened.

TABLE I

OPERATION	EARLY		LATE	
	Cases	Complications	Cases	Complications*
Cholecystectomy .....	3	....	5	....
Supravag. Hyst. ....	12	....	9	....
Pan-hysterectomy ....	24	1	11	....
Vag. hysterectomy ....	2	....	2	....
Perineorrhaphy .....	4	....	8	1
Salpingophorectomy ..	14	....	7	....
Other pelvic opns. ....	6	....	5	....
Caesarean section .....	7	1	3	....
Suprapubic prost. ....	18	4	16	6
Nephrectomy .....	1	....	5	....
Incisional hernia .....	4	....	5	....
Inguinal hernia .....	24	1	7	....
Femoral hernia .....	1	....	1	....
Groin dissection .....	1	....	1	....
Appendectomy—acute ..	39	....	11	1
Appendectomy—rupt. ....	5	2	13	6
Pen. abd. wounds .....	2	....	9	3
Resections—small int. ....	1	....	1	....
Partial gastrectomy .....	2	....	5	....
Colon resections .....	....	....	2	2
Exploratory lap-misc. ....	2	....	6	4
Lumbar sympathectomy ..	3	....	1	....
Totals .....	175	9	133	23

\*Complications included are: pulmonary, vascular, wound disruption, and wound infection.

TABLE II

	EARLY	LATE
Number of cases.....	175	133
Post-op. hosp. days (avg.).....	9.3	11.8
Day of ambulation (avg.).....	2.04	7.2
Average highest temperature.....	99.5	99.8
Patients with asthenia.....	41	67
Patients with nausea or vomiting.....	20	20*
Patients with constipation.....	83	50
Patients with distension.....	8	14
Patients needing catheterization**.....	6	19
Vascular complications.....	1(0.57%)	4(3%)
Pulmonary complications.....	3(1.7%)	10(7.5%)
Wound infections.....	5(2.8%)	8(6.5%)
Wound disruption.....	0	1(0.75%)

\*A number had suction tubes.  
\*\*Excluding indwelling catheters.

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A FEW THINGS I SAW ON MY TRIP TO ATLANTIC CITY AND THE AMERICAN MEDICAL ASSOCIATION

J. H. McCURRY, M.D.  
Cash, Arkansas

I had a wonderful trip to Atlantic City and I sincerely thank the members of the Craighead-Poinsett Medical Society for being the cause of me taking this fine trip. It was indeed considerate of you. You certainly rolled out the red carpet for me.

I am sure that all present when Small took fabulous trips to many sunny climes and probably said,

"When I grow up I mean to go,  
Where all the biggest rivers flow,  
And take a ship and sail around  
The seven seas until I've found  
Robinson Crusoe's famous isle.  
And there I'll land and stay awhile,  
And see how it feels to be  
Lord of an island in the sea."

I am afraid I will not be content to rest awhile as I had such a swell time I will be affected with wanderlust.

I have been to the Gulf of Mexico on the East Coast and on the West Coast; across the lower edge of the United States. I have been to the Atlantic in the Southeast, to several large Northern cities, but this was the most marvelous and enjoyable trip I have ever made.

I flew from Memphis to Philadelphia on the flagship Washington, American Airlines. (The Navy has the airport at Atlantic City so our plane could not land any nearer than Philadelphia). We were scheduled to leave Memphis at 2:35 a. m. The plane was late so we did not leave until about 4 a. m. This plane came from Dallas nonstop to Memphis and we had a non-stop trip to Philadelphia, arriving there about 8:40 a. m. So you see we were about four hours and 40 minutes in flight.

The officers of the airliner issued a flight letter when we were over Roanoke, Va., stating we were 5,900 feet above the ground, cruising at air speed of 215 miles per hour, would pass over Washington and arrive in Philadelphia at approximately 8:40 a. m.

I was looking out over Washington hoping to see the capitol, but could not distinguish one building from the other. I saw some river which I suppose was the Potomac. Saw the Delaware river and Chesapeake bay. Passed over Baltimore, could see steam from the factories. Could



not see the buildings except some that looked as small as dog kennels. Four-lane highways and streets looked about a foot wide and automobiles, when they were visible at all, looked like small bugs crawling.

Arrived at Philadelphia from the airport about 9:30. Thought I would go to Independence Hall and see the room where the Declaration of Independence was signed, where Washington was appointed commander-in-chief and the famed Liberty Bell. Also other historical points. However, it was raining torrents so went on to Atlantic City.

Arrived at Atlantic City about 11:40 a. m. After going to the hotel I slicked up and made for the famous and much-talked of "board walk." This walk is 24 steps wide in the narrow places and much wider in some important points. It is twice this wide at the auditorium. Asked the hotel man about the length. He said it was 10 miles long. It is built along the beach between the ocean and the swanky business shops, extending up to the entrance of these buildings. It extends up the intersections of the streets as much as 50 feet also. Constructed or floored with pine 2x4's, it would take the best saw mill in this section a year to saw this flooring. You can see the Atlantic ocean anywhere along this walk. They allow no vehicles except bicycles and gocarts so you do not have to dodge traffic. These gocarts are different from Chinese rickshaws, as they are pushed by Negroes like baby buggies instead of pulled like rickshaws.

It is fine that this walk is so wide, for walks like we have in the ordinary large cities could not take care of the crowds that continually throng it. There were 15,667 physicians registered, the largest attendance of any medical society or assemblage of physicians ever held anywhere in the world. The American Medical Association was organized in Philadelphia in 1847 with 426 members. Now it has 132,224 physicians on its roster.

Saturday and Sunday any way you looked you could see doctors. Monday, and after, there were oodles and oodles of doctors any where you went or looked. I was in St. Louis at the American Medical Association but did not see one-fourth as many doctors there. Of course they all traveled the boardwalk at Atlantic City and in St. Louis they were scattered all over town. You could see any type of physician, fat or lean, short or tall, ugly or good looking, Jew or Gentile, Chinese, Japanese, Negro,

Mexican, English, French and doctors from everywhere and then some.

This convention celebrating the one-hundredth anniversary of the American Medical Association is claimed to have surpassed every hope and expectation of the Board of Trustees, the Centennial Committee and the headquarters staff of the association. Those who were fortunate enough to attend this great session will long remember it as an epoch-making occasion.

The exhibits opened formally at noon with a talk by Dr. Morris Fishbein. The exhibits numbering 400 were very interesting. You could see anything from a surgical needle to an iron lung, flashlights and X-rays galore, baby food, electrocardiographs, lead pencils, phonographs for reproduction of normal and abnormal heart sounds, baby shoes, gynographs used in diagnosis and treatment of female sterility, fountain pens, treatment tables, malted milk, reception room furniture and anything used in medicine or surgery.

Every single exhibit offered something of immediate interest, such as new drugs and new scientific information. Leading medical publishers showed new books, new editions as well as their standard works. One of the unique displays drawing much interest was the 1793 apothecary shop, authentic and complete in every detail, displaying such equipment as leach jars with leaches in them, a bleeder knife, wooden tincture presses, show globes, glass labeled bottles, with jalap, gamboge, podophyllum, senna leaves and hundreds of other items used by early American practitioners.

Another display competing in interest with the scientific and technical, was the ninth annual exhibition of the American Physicians Art Association displaying some 1,100 paintings, photographs, woodwork, sculpture, leatherwork, tapestry and other creations of the doctors in their hours of relaxation. A pair of goats munching contentedly at a bale of alfalfa hay vied for attention with the latest in medical and surgical apparatus and equipment. They were a feature attraction of the scientific and technical exhibits showing the progress in medicine in the last 100 years. The goats were not just ordinary animals, although in official navy annals they are known only by numbers—135 and 156. They are among the survivors of the Bikini atom bomb test a year ago. Physicians, between examining the newest X-ray machines and such apparatus as the gynograph and thousands of other items on



display, often paused to look at the goats and get their case histories. One redish-haired alpine goat, called Satan, appeared rather frisky and was expected to jump from the stall momentarily. But the white angora who came there without a name but was dubbed Adolph, acted more the gentleman goat. Lieut. Comdr. E. P. Cronkite of the Navy Medical Dept. said both animals had received a 50 per cent lethal dosing of radiation from the atom bomb test. Their blood count dropped, bringing on anemia, and they developed tendencies to bleed. The animals received blood transfusions for two months and penicillin for three months. They appear none the worse for their experience. Commander Cronkite said they still show some effects of radio activity.

Quite a large number attended the County Officers Conference, called "The Grass Roots Conference." From being the first conference of this type ever held by this society. There were 13 panel members, including our own Dr. Brooksher. Dr. George F. Lull, secretary and general manager of the American Medical Association, made a splendid address of welcome on this occasion. This meeting lasted about two hours, with the discussion of such subjects as "The Doctor and the Medical Society;" "The Doctor and the Hospital;" "The Doctor and the Specialty Boards;" "The Doctor and Post-Graduate Education;" "The Doctor and Legislation;" "The Doctor and the Patient," and "The Doctor and the Public."

It was voted a great success, and to have a similar one each year. This action was approved by the House of Delegates. At this and other meetings there was much favorable discussion and praise of the general practitioner, or as most of the physicians wanted them called "The Family Doctor." The purpose was to develop a better working partnership between the American Medical Association and every physician. The outgoing and incoming presidents of the American Medical Association said there was a need to restore the family doctor to a position of importance and prestige. Dr. Shoulders, the president, told the opening session of the organization's House of Delegates that 85 per cent of the diseases for which persons seek medical advice can be diagnosed and treated properly by the family doctor.

In an address to the House of Delegates immediately following Shoulder's speech, President-elect Edward L. Bortz of Philadelphia said the time was appropriate for the Association to

institute a two-day general session for family doctors during American Medical Association conventions.

In the 54 years that I have studied and practiced medicine, there has been so many achievements for the better that it looks and seems almost impossible to accomplish more. But as the poet says,

"I marvel at the wonders of  
This modern day and age,  
And all that science promises  
Upon tomorrow's page.

The plane that flies like lightning and the magic  
mystery

Of what can be accomplished with atomic energy.

And yet I think the world is young,  
And there are years in store,  
With miracles more wonderful  
Than anything before.

I think that in the universe,  
Posterity will find  
An answer to the things that now  
Amaze the human mind.

In later years it will be seen,  
From what the peoples say,  
That actually in many ways,  
The world was young today."

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#### THE SCHERING AWARD FOR 1948 ANNOUNCED

The interesting and vitally important subject of "The Role of Hormones in the Maintenance of Pregnancy" is the basis for The Schering Award for 1948. For the three best manuscripts submitted by undergraduate students of American and Canadian medical schools on such a designated phase of endocrinology, The Schering Award annually offers cash prizes of \$500, \$300 and \$200. Through his efforts in preparing a manuscript for the competition, the medical student acquires useful information in various important fields of endocrinology. Consequently, The Schering Award receives high praise each year from deans of medical schools, their faculties and the student participants. The Schering Award is sponsored by the Schering Corporation of Bloomfield, New Jersey.

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WANTED—A competent medical technician. Salary open. Live out. Write Arkansas Children's Home and Hospital, 804 Wolfe Street, Little Rock, Arkansas.



## BRUCELLOSIS BEST TREATED BY SULFADIAZINE, STREPTOMYCIN

Investigations carried out over a 10-year period in the laboratories and clinics of the University of Minnesota Hospitals indicate that combined treatment with streptomycin and sulfadiazine is more effective against human brucellosis (undulant fever) than any other known therapy, four physicians announce.

The *Brucella* organism is transmitted to humans by contact with diseased hogs, goats or cows, or by drinking the milk of infected animals.

Writing in the February 7 issue of *The Journal of the American Medical Association*, the four doctors report the cases of more than 30 patients with active brucellosis whom they studied and observed, and whose treatment they directed. The writers are Wesley W. Spink, M.D., Wendell H. Hall, M.D., James M. Shaffer, M.D., and Abraham I. Braude, M.D., from the Division of Internal Medicine, University of Minnesota Hospitals and Medical School, Minneapolis.

The December 20, 1947, issue of *The Journal of the American Medical Association* carried a report on the successful treatment of a single case of undulant fever by combined streptomycin and sulfadiazine therapy. The scope of the present writers' investigations enables them to draw more definite conclusions, however.

In the hospital laboratories, they report, the anti-brucella properties of the sulfonamide compounds and the antibiotics were tested on chick embryos which had been inoculated with a culture of *Brucella*. Used separately, sodium sulfadiazine and streptomycin both prolonged life, but in a majority of cases failed to destroy *Brucella* organisms. Only the two in combination achieved that.

Both before and after these chick embryo experiments had yielded results, human patients with bacteriologically-proved brucellosis were being treated and studied in the University of Minnesota Hospitals. Many had been ill for several months, and severe complications were present. From the types of treatment tried, the doctors report the results which might have been expected from the chick embryo experiments: in both acute and chronic brucellosis cases, a sulfadiazine-streptomycin combination brought the most satisfactory results. Furthermore, other patients whose symptoms pointed to brucellosis as the most probable diagnosis also responded well to the combined therapy, although the pres-

ence of *Brucella* organisms in their tissue or body fluids had not been proved.

Exceeded in importance by only three other communicable diseases—tuberculosis, syphilis and gonorrhea—undulant fever has baffled medical men for many years. The forms which the disease takes are extremely variable, and even after apparent recovery the *Brucella* organism may remain in the patient's tissues. Relapse and recurrence of symptoms have therefore been common.

"The fundamental requisite of successful therapy for human brucellosis is that treatment should not only control the infection but that *Brucella* should be eradicated from the tissues," the doctors write. "This therapeutic principle has been the basis for seeking out a more satisfactory form of specific therapy in this clinic."

Sulfonamide therapy obviously did not eradicate *Brucella* from the tissues in well over one-third of the 20 patients who were treated with one of the sulfonamide compounds alone. "Furthermore, recovery in some of the remaining patients might well have been independent of sulfonamide therapy and more directly associated with bed rest."

Streptomycin therapy, administered to seven patients, did not result in a single complete recovery, and in three instances had to be discontinued because of toxic reactions. One patient died from complications, even though *Brucella* had been eradicated from his tissues and blood. As a result of this, and as a result of the investigations which by this time were under way with the chick embryo technic, it was decided to abandon the use of streptomycin alone in favor of combined treatment with streptomycin and sulfadiazine.

Nine patients—six with acute brucellosis, three with the chronic form of the disease—were finally treated simultaneously with sulfadiazine and streptomycin. As a result, all but one gave every indication of recovery. The treatment also was effective in cases with serious complications of brucellosis. One of the apparently cured patients relapsed after treatment was discontinued, but a more prolonged course of treatment resulted in his actual recovery. In the remaining case the course of therapy was interrupted by complications; after an intensive program of chemotherapy he too improved slowly. Even in his case there was no recurrence of brucellosis.

"It remains to be seen whether the combined



therapy will be satisfactory in so-called chronic brucellosis, that is, in patients having a vague type of illness," the doctors conclude.

"Although combined therapy with streptomycin and sulfadiazine has yielded the most satisfactory results to date in this clinic, the intensive investigations on other antibiotics going on at the present time may bring forth other agents more effective against *Brucella* than streptomycin."

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## THE ARKANSAS HEALTH PLAN

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CHAS. R. HENRY, M.D.

Chairman Committee on Medical Service and  
Public Relations

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Among the many organizations which have endorsed the Arkansas Health Plan, one of the latest is the Arkansas Association of Commercial Organization Secretaries, which is composed of the secretaries of the various Chambers of Commerce.

At a recent state meeting the secretaries heard a description of the plan's objectives and benefits and voted in favor of its extension to the people of their respective communities. In addition, many of the secretaries expressed interest in obtaining plan memberships for themselves and their fellow Chamber employees.

Several thousand residents of Arkansas now carry the identification cards issued by the John Marshall Insurance Company, which is underwriting the Arkansas Health Plan. The cards signify that payment for all plan benefits to which the member is entitled will be made directly to the doctor and hospital.

As reported previously in *The Journal*, the plan offers the most liberal health care benefits available anywhere. Among other benefits, it covers up to 120 days of semi-private hospital care including all extras. There are no cash limitations on hospital benefits, and the surgical fee schedule for members who also have this protection is unusually broad.

Since preparation of the report for the last issue of *The Journal*, new members added by the plan have included employees of the State Department of Health in Little Rock and of the Extension Service Department of the University of Arkansas in several areas.

A number of Farm Bureaus now have enrolled their members on a county-wide basis, and many

industrial and business firms have enrolled their employees or are considering enrollment in the near future.

The interest of Medical Society members in the Arkansas Health Plan has extended to active participation in regular enrollment programs. In Jackson County, for example, both the County Medical Society and the hospitals supported the enrollment activities of the County Farm Bureau. Newspaper advertisements addressed to potential Health Plan members were among the effective measures utilized in this program.

Professional support has been a strong factor in this and in many other activities contributing to the rapid growth of the plan since it began operation less than six months ago. For this reason it is considered particularly important that individual physicians continue to keep abreast of the development of the plan and to discuss it with their patients, with employers in their own communities, and with influential citizens.

M. L. Daugherty, director of the plan, will be glad to supply information at any time. Inquiries should be addressed to him at the Arkansas Health Plan, Waldon Building, Little Rock.

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## INDICATIONS FOR PROTOLYSATE

Low residue, high protein diets, often needed by surgical patients, are more easily formulated when Protolysate is included. The ability of Protolysate to buffer gastric acidity while providing nitrogen nutrition has produced increasing clinical evidence of its value in peptic ulcer. The digestive burden is not increased when Protolysate is used as a dietary supplement.

For literature and professional samples of Protolysate write Mead Johnson & Co., Evansville 21, Indiana.





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## EDITORIAL

### A NATIONAL HEALTH ASSEMBLY

Announcement is made of the calling of a national health assembly in Washington, May 1 to 4, by Oscar R. Ewing, Federal Security Administrator. The assembly, Mr. Ewing states, is being arranged as a result of the message of President Truman on January 30th, in which Mr. Ewing was requested to develop feasible national health goals for the next 10 years. Twenty-four national leaders in various fields, one of whom the only physician, is Dr. George F. Lull, secretary-manager, American Medical Association. Preliminary estimates are that from 700 to 800 representatives of public and private organizations and agencies concerned with various phases of the nation's health will attend. Panel discussions will be arranged to study specific phases of the health problem.

President Truman's letter to Mr. Ewing is as follows:

"January 30, 1948.

"Dear Mr. Administrator:

"The health of our people is of such importance to our national welfare and security

that I wish to make certain that we are taking all possible steps to contribute to its improvement. I have, as you know, repeatedly requested the Congress to enact legislation designed to expand basic health services and to bring them within the reach of all the people. While such legislation is of primary importance, its enactment alone will not assure that we shall reach the highest possible levels of health. The attainment of such a goal requires the cooperation of state and local governments, voluntary organizations, the medical and health professions, as well as all of our citizens working together.

"Our people want good health and are willing to work to achieve it. Notable progress has already been made. But I am convinced that we have scarcely scratched the surface and that, as a nation, we can make rapid progress in the immediate future.

"I should like to ask you, therefore, to undertake a comprehensive study of the possibilities for raising health levels and to report to me, at your early convenience, upon feasible goals which might be realized by the American people in the next decade. I should appreciate further any suggestions you may wish to make concerning the most practicable methods of achieving such goals. In preparing this report, you will undoubtedly wish to confer with interested persons both in and out of the government.

"Very sincerely yours,

"Harry S. Truman."

The medical profession will have a great interest in the proceedings of this assembly.

### THE 1948 ANNUAL SESSION

This issue contains the preliminary program of the 1948 annual session of the Society to be held in Robinson Auditorium, Little Rock, April 15-17, 1948. Because of publication schedules the program is incomplete at this time. The House of Delegates will meet Thursday morning, April 15th, and Saturday afternoon, April 17th. Scientific sessions will be held Thursday, Friday and Saturday. The annual memorial session will be held Friday morning. The section on ophthalmology and otolaryngology will meet at the Marion Hotel, Friday morning, April 16th. Social features are planned for Thursday and Friday evenings to permit the friendly associations which are such a feature of the annual sessions. Members are advised to make hotel reservations now.



**RANDOM THOUGHTS OF THE SECRETARY**

January 19th. Attending the second University of Kansas Cancer Conference, a well-planned session which grows in popularity. Tonight with Ira Lockwood's X-ray conference and to bed with the mind mulling the knowledge which has been passed across to us during the day.

January 20th. Louis Allen is the gracious host tonight and a visit to his place on the Kansas side affords the opportunity to meet his staff who have done a good job for a real fellow.

February 9th. Accustomed as he is to "putting his foot in his mouth," no one would have expected him to bite it off as he did this day.

February 10th. What an aggressive, alert and enthusiastic Republican party could do in Arkansas!!!

February 16. With but two members absent the radiologists of the state gather at the Albert Pike where, on this occasion, the conversation is of economic matters, but all are assured that the next session at Fred Hames farm, the affair will be entirely social fishing.

February 18th. To Clarksville with Goldstein and Olson, seeing Siegel, Hunt, Hardgrave, Shrigley and Graves as colleagues and (our figures) the major portion of 76 individuals who attend the diagnostic cancer clinic. One of our more pleasant days, the only regret is Olson's belated discovery that lunch was on expense-paid basis.

February 20th. Arriving late for the postgraduate luncheon but in time to hear Earle Hunt's Information, Please, questions and in the afternoon to the marvelous Stover establishment, to visit the departments in bewilderment, amazed at what must easily be the country's greatest surgical supply house, a well-deserved attainment. Later conferring on possible executive secretaries and catching a ride home with two University of Arkansas trustees, a group which meets about as often as do we with our various committees.

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**OBITUARY**

THOMAS A. PETERSON, age 40, died at his home in Wynne February 3rd after a prolonged illness. Born in Paragould, he graduated from the University of Tennessee College of Medicine in 1932 and had practiced at Wynne about 14 years. He was a member of the Baptist church, the Masonic lodge, of the Cross County Medical Society and was a fellow of the American Medical Association. Surviving are his wife, his parents and a sister.

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MARDELLE YATES POPE, age 78, Monticello, died January 22nd. A graduate of Jefferson Medical College in 1893, he had practiced in Monticello for 50 years. During World War I he served as captain in the Army Medical Corps. He was a fellow of the American Medical Association and had served in the various offices of his county medical society. Surviving are his wife and a daughter.

THOMAS CAMPBELL GUTHRIE, age 67, Smithville, died February 11th. A graduate of the College of Physicians and Surgeons, Little Rock, in 1908, with postgraduate training at the University of Tennessee, he had practiced in Lawrence County for 40 years. He had served as worshipful master of the Smithville Masonic lodge four times and was president of the Lawrence County Medical Society at the time of his death, an office he had held on previous occasions. Surviving are his wife and two sons.

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**JOSIAH KIRBY LILLY DIES**

JOSIAH KIRBY LILLY, chairman of the Board of Directors of Eli Lilly and Company, died on February 8, 1948. He was 86 years old.

Mr. Lilly was born in Greencastle, Indiana. His father, Col. Eli Lilly, founded the company on May 10, 1876. Josiah Kirby, as "a boy with a wicker basket," delivered the first pound of a Lilly product to a near-by wholesale druggist. He was then 14 years old.

In 1880, he entered the Philadelphia College of Pharmacy and Science, from which he graduated in 1882. Upon returning to Indianapolis he became superintendent of the plant, in which capacity he continued for about 16 years. When Colonel Lilly died in June, 1898, his son was elected president of the company. After 34 years as president, Mr. Lilly became chairman of the Board of Directors in 1932. He retired from active service with the company on January 1, 1945.

Under his management Eli Lilly and Company became one of the outstanding organizations in the pharmaceutical field, with international distribution.

In recognition of his services in civic, scientific, educational, and cultural organizations, eight colleges and universities conferred honorary degrees upon him. Among his active hobby interests were his apple orchards, the music of Stephen Foster, and the growing of orchids.

Mr. Lilly's relations with those who worked for his company were singularly happy. He was generous in giving credit to his associates for accomplishments and promoted harmony that brought teamwork in the organization. His sympathetic interest in the individual problems of company personnel endeared him to all employees.

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## PERSONALS AND NEWS ITEMS

J. J. Morrow has moved from Cotter to Mountain Home.

Virgil Payne, Pine Bluff, addressed the Southern Section, American Laryngological, Rhinological and Othological Society, at New Orleans, January 23rd, on "Penicillin in the Treatment of Ear, Nose and Throat Diseases."

In attendance at the New Orleans meeting of the American Triological Society were L. M. Henry, Fort Smith; Virgil Payne, Pine Bluff, and Paul L. Mahoney, Little Rock.

The following attended the Oklahoma City Regional Conference of the American College of Surgeons: J. Leo Aday, H. Fay H. Jones, T. J. Raney, Jos. F. Shuffield, Little Rock; Fred H. Krock, Fort Smith; Wm. B. Harrell, Texarkana, and P. L. Hathcock, Fayetteville.

Leeman H. King is now associated in practice with Chas. H. Lutterloh at Hot Springs National Park.

A. C. Shipp recently addressed the Young Business Girls of Little Rock.

H. E. Mobley has been elected president of the Morrilton Federal Savings and Loan Association.

Miled F. Kelly has been appointed city health director at North Little Rock.

H. E. Mobley has been elected a director of the Morrilton Chamber of Commerce and of the Morrilton Industrial Foundation.

R. B. Robins has been elected president of the Knife and Fork Club at Camden.

M. S. Craig, Jr., who received the degree of Master of Science in Proctology at the University of Minnesota for work done at the Mayo Clinic on December 18, 1947, has located for practice at 432 Waldon Building, Little Rock.

J. K. Donaldson, Little Rock, recently visited thoracic surgery clinics in New York, Baltimore and Philadelphia.

Lee County Medical Society has elected C. W. Chaffin, president, and W. C. Hays, Jr., secretary-treasurer.

BORN—On December 29, 1947, at Hartford, Connecticut, a son, to Dr. and Mrs. A. C. Watson, Jr.

The Mid-South Postgraduate Medical Assembly has elected Hoyt R. Allen, Little Rock, president-elect, and Robert Hood, Russellville, vice president for Arkansas.

Miles F. Kelly has been appointed city health officer at North Little Rock.

George E. Gibbons, formerly of the Fey Clinic, Ruston, Louisiana, is now in partnership with Robert F. Hyatt, Jr., at Monticello.

Wm. B. Harrell, Texarkana, addressed the Oklahoma City Regional Conference of the American College of Surgeons on "Present Status of Treatment of Cervical Cancer."

John Ruff recently addressed the Sorosis Club of Magnolia on "Cancer and Cancer Control."

John W. Cole, formerly of Sheridan, is now located at Malvern.

G. E. Watkins, formerly of Mount Ida, is now located at Durant, Oklahoma.

Julius H. Harris is now engaged in practice at Eudora, occupying the office of S. W. Douglas.

Johnson County Medical Society has elected the following officers: President, J. M. Kolb; Vice-president, Geo L. Hardgrave; Secretary-treasurer, G. R. Siegel; Delegate, Guy Shrigley, and Alternate, J. M. Kolb.

Grant County Medical Society has elected the following officers: President, Jack Irvin; Vice-president, O. R. Kelly; Secretary-treasurer, O. W. Hope; Delegate, Jack Irvin, and Alternate, O. R. Kelly.

## PROCEEDINGS OF SOCIETIES

The Ouachita County Medical Society met February 5 at the Kilgore Hotel in Fordyce as dinner guests of Drs. Ellis and Ellis of Fordyce. The program consisted of the following symposium on respiratory diseases: "Actinomycosis of Lung" (case report), T. E. Rhine, Thornton; "Influenza," W. C. Magness, Camden; "Lobar



Pneumonia," J. B. Jameson, Camden; "Virus Pneumonia," Perry Dalton, Camden, and "Pleurisy and Empyema," R. B. Robins, Camden.

R. B. Robins, Secretary.

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Washington County Medical Society has elected the following officers: President, Richard Miller; vice president, V. O. Lesh; secretary-treasurer, J. W. Dorman; delegate, Fount Richardson.

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The Craighead-Poinsett County Medical Society met February 5th for the following program: "Psychic Factors in the Development and Treatment of Obesity," J. B. Elders, Walnut Ridge; "Resume of Cases of Perforated Ulcers at the University Hospital Over a Five-Year Period," Malcolm O. Peeler, Jonesboro.

J. H. McCurry, Secretary.

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Chicot County Medical Society has elected the following officers: President, Byron Z. Binns; vice president, H. W. Thomas; secretary-treasurer, M. K. Bottorff; delegate, W. D. Easterling, and alternate, J. H. Burge.

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Lawrence County Medical Society has elected the following officers: President, T. C. Guthrie; vice president, W. S. Kendall; secretary-treasurer, Chas. D. Tibbels; delegate, J. C. Land, and alternate, W. W. Hatcher.

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Arkansas County Medical Society has elected the following officers: President, R. H. Whitehead; vice president, Milton John; secretary-treasurer, R. H. Whitehead, Jr.; delegate, S. A. Drennen, and alternate, R. H. Whitehead.

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Clark County Medical Society has elected the following officers: President, C. K. Townsend; secretary-treasurer, Joe W. Reid; delegate, C. K. Townsend, and alternate, Joe W. Reid.

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The Greene County Medical Society met at the Dickson Memorial Hospital, Paragould, January 13th and elected the following officers: President, G. P. Bridges; vice president, A. H. Maddox, and secretary-treasurer, W o o d r o w Lamb.

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Nevada County Medical Society has elected the following officers: President, O. G. Hirst; vice president, C. P. Arnold; secretary-treasurer, L. J. Harrell; delegate, L. J. Harrell, and alternate, G. G. Hairston.

Drew County Medical Society has elected the following officers: President, J. B. Holder, Jr.; vice president, Robert F. Hyatt, Jr.; secretary-treasurer, George E. Gibbons; delegate, C. Lewis Hyatt and alternate, J. P. Price.

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Franklin County Medical Society has elected the following officers: President, W. H. Bollinger; vice president, E. W. Pillstron; secretary-treasurer, W. H. Gibbons; delegate, C. C. Long, and alternate, W. H. Gibson.

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Logan County Medical Society has elected the following officers: President, A. R. Hedrick; vice president, I. H. Jewell; secretary-treasurer, A. B. Dickey; delegate, I. H. Jewell, and alternate, James T. Smith.

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Miller County Medical Society has elected the following officers: President, Karlton H. Kemp; vice president, James B. Kittrell; secretary-treasurer, Wm. B. Harrell; delegate, H. E. Murry.

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Garland County Medical Society has elected the following officers: President, Frank Adams; vice president, W. E. Gray; secretary-treasurer, W. A. Goodrum; delegates, Chas. H. Lutterloh, E. Driver Rowland and G. C. Coffey, and alternates, L. E. Reed, J. S. Stell and G. M. Hogaboom.

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Jefferson County Medical Society has elected the following officers: President, George Talbot; vice president, C. W. Anderson; secretary-treasurer, J. C. Hart; delegate, Louis Hundley, and alternate, George Talbot.

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Pope-Yell County Medical Society has elected the following officers: President, J. Arnold Henry; vice president, A. C. Linton; secretary-treasurer, William O. Young; delegates, Brooks Teeter, J. K. Grace, and alternate, J. Arnold Henry.

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The Committee of Postgraduate Study presented the following program at the University of Arkansas School of Medicine, Little Rock, February 19 and 20: "Some Public Health, Preventive, Medical and Clinical Aspects of Rheumatic Fever," Francis F. Schwentker, Baltimore; "Remarks on Rheumatic Fever," Francis F.



Schwentker; "Presentation of Cases of Rheumatic Fever," Francis F. Schwentker; "Coma and Other Problems in Diabetes," Joseph T. Roberts, Little Rock; "Undulant Fever: Its Diagnosis and Treatment," J. Kenneth Thompson, Fort Smith; "The Antibiotics: Indications and Safe Use," Norman Woodey, New Orleans; "Coronary Disease and Heart Failures," S. C. Fulmer, Little Rock; "Toxemias of Pregnancy," Conrad Collins, New Orleans; "Treatment of Burns," Ellery C. Gay, Little Rock; "The Menopause," E. T. Ellison, Little Rock; "Office Psychiatry," George Jackson, Little Rock, and "Immunization," W. A. Reilly, Little Rock. Round-table luncheon meetings were held on each day and the University of Arkansas School of Medicine alumni held a dinner meeting the evening of February 19th.

Howard-Pike County Medical Society has elected the following officers: President, H. H. Holt; vice-president, F. F. Ferguson; secretary-treasurer, M. D. Duncan; delegate, W. H. Toland, and alternates, J. G. Waldrop and W. J. Jones.

Hot Spring County Medical Society has elected the following officers: President, W. F. Barrier; vice-president, R. V. McCray; secretary-treasurer, C. F. Peters; delegate, H. L. Brown; alternate, John W. Cole.

## WOMAN'S AUXILIARY NEWS

Mrs. Thomas Price Foltz will succeed Mrs. Fred H. Krock as president of the Sebastian County Medical Society Auxiliary. She and other officers for 1948 were elected February 10th.

The other officers are, Mrs. Kenneth J. Thompson, vice president; Mrs. L. A. Whittaker, secretary, and Mrs. Ralph Crigler, treasurer.

Present for the meeting besides the above named were Mrs. M. E. Foster, Mrs. Stanley Gates, Mrs. Arthur F. Hoge, Mrs. Hugh Johnson, Mrs. S. P. Stubbs, Sr., Mrs. J. S. Southard, Mrs. S. J. Wolferman, Mrs. A. S. Koenig, Mrs. B. L. Ware, Mrs. E. C. Moulton, Mrs. John D. Olson, Mrs. Ben H. Pride, Mrs. V. N. Kennedy, Mrs. W. L. Shippey, Fort Smith; Mrs. S. P. McConnell, Booneville, and the hostesses, Mrs. Walter Eberle and Mrs. W. F. Rose.

Mrs. W. F. Rose, Chairman.

## PRELIMINARY PROGRAM AND ANNOUNCEMENTS

### Seventy-second Annual Session Arkansas Medical Society

Robinson Auditorium  
Little Rock, Arkansas  
April 15, 16, 17, 1948

### Officers

PRESIDENT—L. T. Evans .....Batesville  
PRESIDENT-ELECT—P. W. Lutterloh .....Jonesboro  
FIRST VICE-PRESIDENT—T. Duell Brown .....Little Rock  
SECOND VICE-PRESIDENT—L. M. Lile .....Hope  
THIRD VICE-PRESIDENT—Fount Richardson .....Fayetteville  
TREASURER—Paul L. Mahoney .....Little Rock  
SECRETARY—W. R. Brooksher .....Fort Smith

### Councilors and Councilor Districts

EUCLID M. SMITH, Chairman, Hot Springs  
First District—Clay, Crittenden, Craighead, Greene, Lawrence, Mississippi, Poinsett and Randolph counties. L. H. McDaniel, Tyronza. Term of office expires 1949.  
Second District—Clebune, Fulton, Independence, Izard, Jackson, Sharp, Stone and White counties. M. C. Hawkins, Jr., Searcy. Term of office expires 1948.  
Third District—Arkansas, Cross, Lee, Monroe, Phillips, Prairie, St. Francis and Woodruff counties. S. A. Drennen, Stuttgart. Term of office expires 1949.  
Fourth District—Ashley, Bradley, Chicot, Cleveland, Desha, Drew, Jefferson and Lincoln counties. M. C. Crandall, Wilmot. Term of office expires 1948.  
Fifth District—Calhoun, Columbia, Dallas, Lafayette, Ouachita and Union counties. J. H. Wilson, Magnolia. Term of office expires 1949.  
Sixth District—Hempstead, Howard, Little River, Miller, Nevada, Pike, Polk and Sevier counties. R. C. Dickinson, Horatio. Term of office expires 1948.  
Seventh District—Clark, Garland, Hot Spring, Montgomery and Saline counties. Euclid M. Smith, Hot Springs National Park. Term of office expires 1949.  
Eighth District—Conway, Faulkner, Grant, Lonoke, Perry, Pope, Pulaski, Van Buren and Yell counties. Ellery C. Gay, Little Rock. Term of office expires 1948.  
Ninth District—Baxter, Boone, Carroll, Marion, Newton and Searcy counties. D. L. Owens, Harrison. Term of office expires 1949.  
Tenth District—Benton, Crawford, Franklin, Johnson, Logan, Madison, Sebastian, Scott and Washington counties. Earle H. Hunt, Clarksville. Term of office expires 1948.

### Ex-Officio Councilors

L. T. EVANS, President .....Batesville  
P. W. LUTTERLOH, President-Elect .....Jonesboro  
PAUL L. MAHONEY, Treasurer .....Little Rock  
W. R. BROOKSHER, Secretary .....Fort Smith

### Committees

SCIENTIFIC WORK—Jos. B. Wharton, Jr., Chairman, El Dorado (1950); Chas. H. Lutterloh, Hot Springs National Park (1949); Hoyt R. Allen, Little Rock (1948); R. J. Calcote, Little Rock (1949); C. S. Moss, Hot



Springs National Park (1950); W. R. Brooksher, Fort Smith (ex-officio).

**MEDICAL LEGISLATION**—Jos. F. Shuffield, Chairman, Little Rock (1949); Robert A. Hood, Russellville (1950); M. L. Norwood, Lockesburg (1949); M. E. McCaskill, Little Rock (1949); D. L. Owens, Harrison (1949); L. T. Evans, Batesville (1949); W. H. Toland, Nashville (1948); L. H. McDaniel, Tyronza (1949).

**MEDICAL EDUCATION AND HOSPITALS**—Euclid M. Smith, Chairman, Hot Springs National Park (1949); A. S. Buchanan, Prescott (1948); Gaston A. Hebert, Hot Springs National Park (1949); H. Clay Chenault, Hot Springs National Park (1949); O. C. Melson, Little Rock (1949); F. A. Corn, Little Rock (1949); W. J. Ket, Batesville (1950).

**HEALTH AND PUBLIC INSTRUCTION**—T. T. Ross, Chairman, Little Rock (1950); Paul T. Stroud, Jonesboro (1949); R. E. Smallwood, Hot Springs (1948); E. D. McKnight, Brinkley (1950).

**MEDICAL ECONOMICS**—H. E. Mobley, Chairman, Morrilton (1948); J. J. Monfort, Batesville (1950); John Sneed, Conway (1949).

**SCIENTIFIC EXHIBIT**—Jeff Banks, Chairman, Little Rock (1948); H. A. Causey, Pine Bluff (1949); J. K. Walker, Pine Bluff (1950); R. E. McLochlin, Little Rock (1959).

**NECROLOGY**—L. H. McDaniel, Chairman, Tyronza; W. H. Mock, Prairie Grove; C. W. Dixon, Gould; E. F. Ellis, Fayetteville.

**CANCER CONTROL**—Fred Hames, Chairman, Pine Bluff; R. H. Willett, Jonesboro; D. A. Rhinehart, Little Rock; L. P. Good, Texarkana; S. A. Drennen, Stuttgart; C. A. Archer, Jr., Conway; Fred H. Krock, Fort Smith; Henry G. Hollenberg, Little Rock; J. G. Gladden, Harrison; D. E. White, El Dorado; Porter Rodgers, Searcy; Carl A. Rosenbaum, Little Rock.

**MATERNAL AND CHILD WELFARE**—I. F. Jones, Chairman, Fort Smith; E. C. McMullen, Pine Bluff; G. D. Murphy, Jr., El Dorado; Clyde D. Rodgers, Little Rock; J. O. Rush, Forrest City; M. S. Craig, Batesville; Jim McKenzie, Hope.

**HEART**—Alan A. Gilbert, Chairman, Fayetteville; Chas. T. Chamberlain, Fort Smith; G. W. Parson, Texarkana; A. A. Blair, Fort Smith; E. Driver Rowland, Hot Springs National Park; Paul Gray, Batesville.

**CONTROL OF SYPHILIS**—Louie G. Martin, Chairman, Hot Springs National Park; D. W. Goldstein, Fort Smith; Rector C. Hooper, Batesville; W. C. Hays, Jr., Marianna; Paul T. Stroud, Jonesboro.

**POSTGRADUATE STUDY**—Jos. F. Shuffield, Chairman, Little Rock; D. A. Rhinehart, Little Rock; E. D. McKelvey, Paragould; J. H. Burge, Lake Village; L. M. Lile, Hope; Joe W. Reid, Arkadelphia; W. C. Langston, Little Rock; B. E. Barlow, Dermott; O. J. T. Johnston, Batesville; J. H. McCurry, Cash.

**AUXILIARY**—L. K. Hundley, Chairman, Pine Bluff; A. C. Shipp, Little Rock; H. T. Smith, McGehee; J. F. Jackson, Newport; C. A. Churchill, Batesville.

**STUDY OF MIDWIFERY**—J. P. Price, Jr., Chairman, Monticello; T. H. Jones, Waldo; F. Q. Wyatt, Batesville.

**LIAISON WITH THE ARKANSAS TUBERCULOSIS ASSOCIATION**—A. C. Shipp, Chairman, Little Rock; J. D. Riley, State Sanatorium; J. F. Williams, Texarkana; S. C. Fulmer, Little Rock; R. M. Kelly, Lonoke.

**INDUSTRIAL HEALTH**—A. D. Cathey, Chairman, El Dorado; J. B. Jameson, Camden; W. V. Newman, Little

Rock; J. Harry Hayes, Little Rock; A. S. J. Clarke, Fort Smith.

**MENTAL HYGIENE**—A. C. Kolb, Chairman, Little Rock; Geo. B. Fletcher, Hot Springs National Park; Pat Murchey, Little Rock; Elizabeth Fletcher, Little Rock; R. F. Darnall, Little Rock; Louis A. Cohen, Little Rock; Joe Verser, Harrisburg.

**ADVISORY TO STATE INSTITUTIONS**—R. B. Robins, Chairman, Camden; J. B. Jameson, Camden; L. J. Harrell, Prescott; Jos. F. Shuffield, Little Rock; T. E. Williams, Newport.

**MILITARY AFFAIRS**—Jos. H. Sanderlin, Chairman, Little Rock; Hickman Calaway, Batesville; A. H. Hathcock, Fayetteville; Friedman Sisco, Springdale; W. A. Butts, Helena.

**RURAL HEALTH**—Joe W. Reid, Chairman, Arkadelphia; F. H. Jones, Piggott; R. L. Calaway, Batesville; A. F. Barr, Cherry Valley; B. M. Gardner, Star City; G. F. McLeod, Magnolia; J. W. Branch, Hope; H. J. Hall, Clinton; B. N. Saltzman, Mountain Home; Fount Richardson, Fayetteville.

**LOCAL COMMITTEE, PULASKI COUNTY MEDICAL SOCIETY**—Hoyt R. Allen, Chairman; Edwin F. Gray, Jeff Banks, Doyle W. Fulmer.

## ANNOUNCEMENTS

### REGISTRATION

The registration desk will be located on the ground floor, Robinson Auditorium, Garland Avenue entrance, and will be open from 8:00 A. M. to 4:00 P. M., Thursday, April 15th and Friday, April 16th, and from 8:00 A. M. to 1:00 P. M., Saturday, April 17th. Delegates are requested to register as early as possible, presenting credentials at the time of registration. Delegates should present credentials in proper form. Members and visitors are required to register as admission to all sessions will be by badge. Bring your 1948 membership card to facilitate registration. Members of the American Medical Association from other states may register as guests.

### MEETINGS OF THE COUNCIL

The Council of the Arkansas Medical Society, including the past-presidents, will meet at 12:15 P. M., April 15th, 16th and 17th, in the Colonial Room, Hotel Marion.

### PAST-PRESIDENT'S BREAKFAST

The Past-President's Breakfast will be held in the Rendezvous Room, Hotel Marion, at 7:30 A. M., Saturday morning, April 17th.

### GOLF TOURNAMENT

Plans are under way to renew competition for the Dewell Gann, Jr., Gold Cup of the Society. Announcement will be made during the session.

### TELEPHONE SERVICE

Telephone service will be available at the registration desk—number 5-4697.

### HOUSE OF DELEGATES

Thursday Morning, April 17, 9:30 A. M.

Robinson Auditorium

PRESIDING—L. T. EVANS, President.

Calling Meeting to Order.

Roll Call of Delegates.

Report of Credentials Committee.

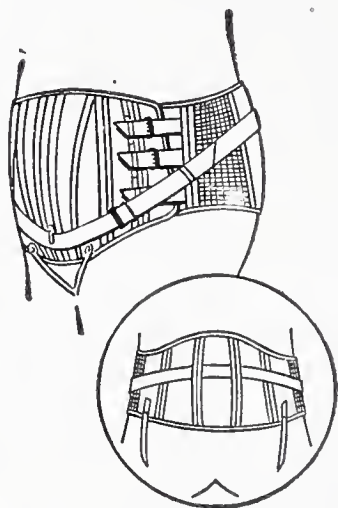
Introduction of Fraternal Delegates.



# Men's Surgical Appliance Department

## OBESITY SUPPORTERS

### DOUBLE GORE



A high grade and very strong, serviceable combination non-elastic and elastic supporter. The stout, double welt elastic gores inserted in each side over the hips provide plenty of strength and aid in making the appliance fit properly and comfortably. Two plies of coutil make up the non-elastic portion. Particularly adapted for obesity and for any ventral or umbilical hernia conditions in heavy men or women. The front is pouched slightly and increased according to girth measurements. An extra supporting strap gives additional uplift. Fastens on each side by three non-elastic straps and buckles. Front depths graduated from nine to twelve inches, according to girth measurements.

Stock Sizes 36-52

## Ladies' Surgical Department

### YOUR SACRO-ILIAC PATIENTS . . .

They will receive prompt and understanding attention from our competent Camp-trained fitters whom you may depend upon to follow your instructions with precision and fidelity.

**CAMP** ANATOMICAL SUPPORTS also available for prenatal, postnatal, postoperative, pendulous abdomen, visceroptosis, nephroptosis, hernia, mammary gland and other orthopedic conditions.



*Authorized*  *Service*

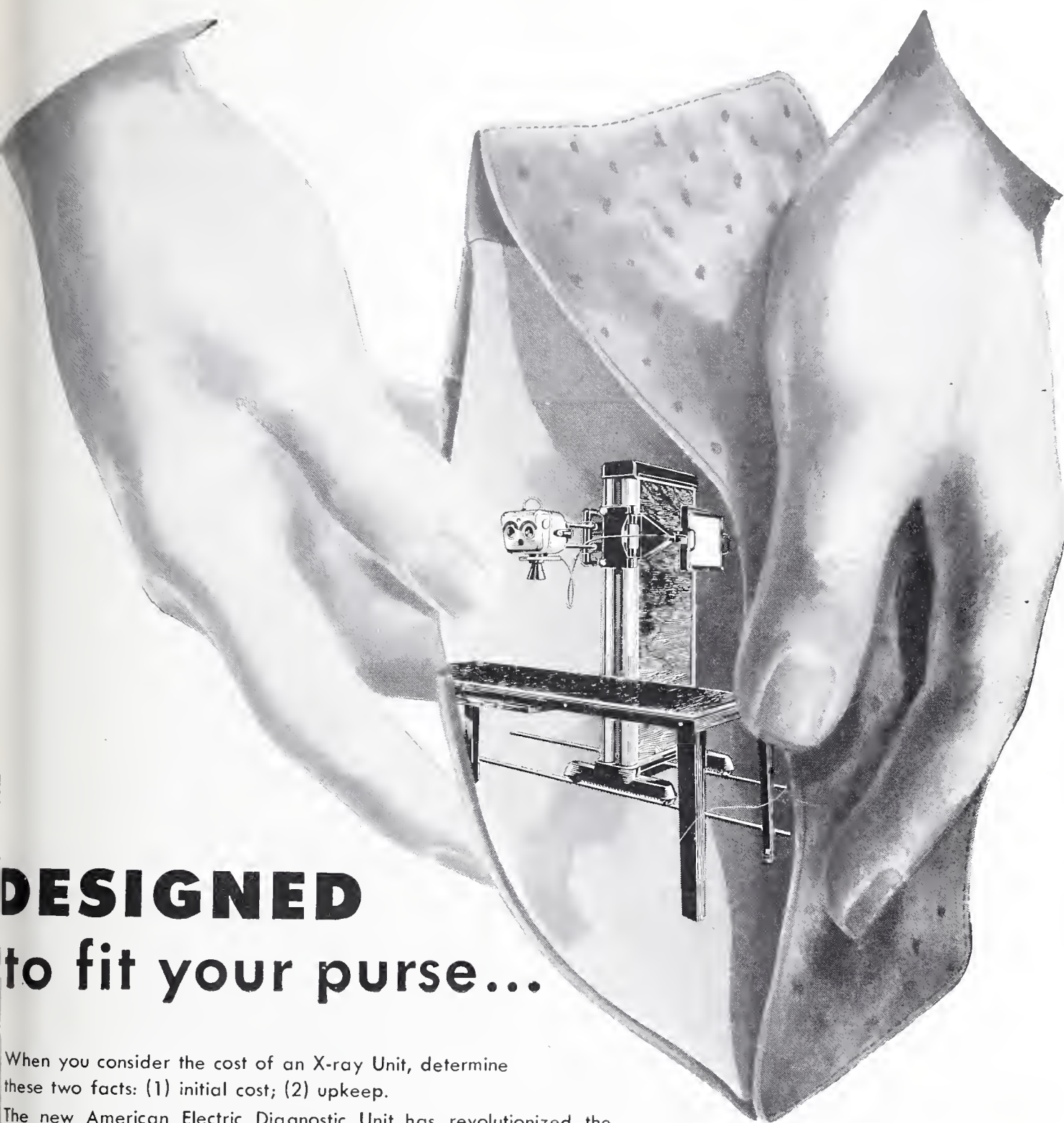
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Adoption of Minutes of the Seventy-first Annual Session, Published in the June, 1947, Issue of The Journal of the Arkansas Medical Society.

Appointment of the Reference Committee.

President's Address to the House of Delegates.

#### REPORT OF COMMITTEES—

(Limited to 10 minutes by the House of Delegates, 1942 session).

Arrangements—Hoyt R. Allen, Chairman.

Scientific Work—Jos. B. Wharton, Jr., Chairman.

Medical Legislation—Jos. F. Shuffield, Chairman.

Medical Education and Hospitals—Euclid M. Smith, Chairman.

Health and Public Instruction—T. T. Ross, Chairman.

Medical Economics—H. E. Mobley, Chairman.

Scientific Exhibit—Jeff Banks, Chairman.

Necrology—L. H. McDaniel, Chairman.

Cancer Control—Fred Hames, Chairman.

Maternal and Child Welfare—I. F. Jones, Chairman.

Heart—Alan A. Gilbert, Chairman.

Control of Syphilis—Louie G. Martin, Chairman.

Postgraduate Study—Jos. F. Shuffield, Chairman.

Auxiliary—L. K. Hundley, Chairman.

Study of Midwifery—J. P. Price, Jr., Chairman.

Liaison with the Arkansas Tuberculosis Association—A. C. Shipp, Chairman.

Industrial Health—A. D. Cathey, Chairman.

Mental Hygiene—A. C. Kolb, Chairman.

Advisory to State Institutions—R. B. Robins, Chairman.

Military Affairs—Jos. H. Sanderlin, Chairman.

Rural Health—Joe W. Reid, Chairman.

Veterans Administration Medical Care Program—Euclid M. Smith, Chairman.

Report of the State Medical Board of the Arkansas Medical Society—L. J. Kosminsky, Texarkana.

Report of the Arkansas State Cancer Commission—Carl A. Rosenbaum, Secretary.

Report of Delegates to the American Medical Association—D. A. Rhinehart.

Report of the Council—Euclid M. Smith, Chairman.

Report of the Treasurer—Paul L. Mahoney.

Report of the Secretary—W. R. Brooksher.

New Business.

The following amendments were proposed at the 1947 annual session and have met the constitutional requirements for final action at the 1948 annual session:

Article XI—In the second sentence, to substitute the figures \$25.00 for \$5.00.

Chapter IV, Section 2—To add an additional sentence reading: "The Section on Ophthalmology and Otolaryngology shall be represented in the House of Delegates by one delegate."

Selection of the Nominating Committee.

### FIRST GENERAL SESSION

Thursday Afternoon, April 15, 2 P. M.  
Robinson Auditorium

Presiding, L. T. Evans, President.

Invocation—Rev. Sam F. Freeman, Pulaski Heights Christian Church, Little Rock.

Address of Welcome—Henry G. Hollenberg, President, Pulaski County Medical Society, Little Rock.

Response to Address of Welcome—J. J. Monfort, Batesville.

"The Control of Mortality in Thyroid Surgery"—J. Harry Hayes, Little Rock.

"Tetanus"—J. J. Monfort, Batesville.

"Common Disorders of the Lower Female Genital Tract"—Leston E. Fitch, Crossett.

"The Early Diagnosis of Poliomyelitis"—Irvin E. Hendryson, Department of Orthopedics, University of Colorado, Denver.

### SECOND GENERAL SESSION

Friday Morning, April 16, 9:30 A. M.  
Robinson Auditorium

Presiding—L. T. Evans, President.

"Urology in Relation to the Other Specialties"—H. King Wade, Jr., Hot Springs National Park.

"Useful X-ray Procedures in Everyday Practice"—Geo. C. Burton, El Dorado.

"Cancer of the Rectum and Pelvis Colon"—Harry E. Bacon, Philadelphia.

"Panel Discussion on Subjects of General Interest to the Various Fields of the Practice of Medicine"—Faculty, University of Arkansas School of Medicine, Joseph Roberts, Dean.

### MEMORIAL SERVICES

Friday Morning, April 16  
Robinson Auditorium  
11:40 A. M.

Presiding—L. T. Evans, President.

Invocation—Rev. R. Wilbur Herring, Calvary Baptist Church, Little Rock.

Musical Selection—

Memorial Address—

Musical Selection—

Benediction—Rev. R. Wilbur Herring.

### IN MEMORIAM

Alva A. Garratt, Pine Bluff, March 5, 1947.

Robert P. Woods, Altheimer, May 9, 1947.

John R. Kitley, Mayflower, May 19, 1947.

Edgar S. Whaley, Carlisle, June 13, 1947.

James H. Benefield, Fort Smith, July 10, 1947.

Herbert H. McAdams, Jonesboro, July 11, 1947.

Arthur G. Henderson, Imboden, July 24, 1947.

Aris W. Cox, Helena, July 29, 1947.

Curtis H. Kennedy, Fort Smith, August 5, 1947.

John M. Proctor, Hot Springs, August 9, 1947.

William A. Craig, Eudora, August 10, 1947.

Henry B. Hull, Mammoth Spring, August 28, 1947.

William M. Wear, Paris, August 30, 1947.

Thomas L. Savin, Little Rock, October 3, 1947.

Ruffin Longest, Wynne, October 16, 1947.

Albert H. Mann, Texarkana, October 16, 1947.

Clarence Finney, Maynard, October 23, 1947.

William H. Martin, Holly Grove, October 25, 1947.

Floyd Clardy, Hot Springs, November 21, 1947.

Albert M. Elton, Newport, December 10, 1947.

Mardelle Y. Pope, Monticello, January 22, 1948.

Thomas A. Peterson, Wynne, February 3, 1948.

Thomas C. Guthrie, Smithville, February 11, 1948.

### SECTION OF OPHTHALMOLOGY AND OTOLARYNGOLOGY

Friday Morning, April 16, 9 A. M.  
Hotel Marion

Chairman—R. R. Kirkpatrick, Texarkana.

Secretary—K. W. Cosgrove, Little Rock.

Chairman's Address—R. R. Kirkpatrick.

Symposium on Carcinoma of Larynx—

Paul L. Mahoney, Little Rock.

John W. Smith, Little Rock.

Fred W. Ogden, Fayetteville.

Industrial Ophthalmology—Hedwig S. Kuhn, Hammond, Indiana, member Committee on Industrial Ophthalmology, American Medical Association.

A Round-Table Luncheon and Business Meeting Will Follow the Scientific Session.



**THIRD GENERAL SESSION**

Friday Afternoon, April 16, 2 P. M.

Robinson Auditorium

"The General Practice of Medicine as Related to the American Academy of General Practice"—Paul A. Davis, President, American Academy of General Practice, Akron, Ohio.

"The Rationale of Surgical Treatment of Ludwig's Angina"—Robert Hipsley, Crossett.

"Industrial Ophthalmology"—Hedwig Kuhn, Hammond, Indiana, member Committee on Industrial Ophthalmology, American Medical Association.

"Peptic Ulcer: Present Surgical Concepts"—Thomas P. Foltz, Fort Smith.

"Bronchiectasis: Diagnosis and Treatment"—D. Harvey Shipp, Little Rock.

**FINAL GENERAL SESSION**

Saturday Morning, April 17, 9:30 A. M.

Robinson Auditorium

"Office Anesthesia"—Mahlon D. Prickett, Little Rock.

"The Lymph Node as an Aid to the Practitioner in Diagnosis"—R. L. Ferguson, Professor of Pathology, University of South Dakota, Vermillion.

Subject to be Announced—Carl A. Nau, Professor of Preventive Medicine, University of Texas School of Medicine, Galveston.

Subject to be Announced—J. K. Thompson, Fort Smith.

Subject to be Announced—Richard Cattell, Lahey Clinic, Boston.

**FINAL SESSION HOUSE OF DELEGATES**

Saturday Afternoon, April 17, 2 P. M.

Robinson Auditorium

Presiding—L. T. Evans.

Roll Call

Report of the Nominating Committee

Election of Officers:

President-Elect

First Vice-President

Second Vice-President

Third Vice-President

Treasurer

Secretary

Councilors from the Second, Fourth, Sixth, Eighth and Tenth Districts

Delegate to the American Medical Association

Alternate to the American Medical Association.

Report of the Reference Committee.

Report of Committees.

New Business

Adjournment.

**GENERAL SESSION**

Saturday Afternoon, April 17th

(Immediately following adjournment of the House of Delegates.)

Presiding—L. T. Evans.

Presentation of President P. W. Lutterloh.

Presentation of the President-Elect.

New Business

Selection of the Place of Next Meeting.

Adjournment Sine Die.

**Council Meeting**

The new council will meet for brief reorganization meeting immediately following adjournment sine die.

**PRELIMINARY PROGRAM  
TWENTY-THIRD ANNUAL SESSION****WOMAN'S AUXILIARY**

TO THE

**ARKANSAS MEDICAL SOCIETY**

Albert Pike Hotel, Little Rock

APRIL 15 AND 16, 1948

**OFFICERS**

PRESIDENT—Mrs. W. J. Hunt, Warren.

PRESIDENT-ELECT—Mrs. Mason G. Lawson, Little Rock.

FIRST VICE-PRESIDENT—Mrs. Curtis Jones, Benton.

SECOND VICE-PRESIDENT—Mrs. Fount Richardson, Fayetteville.

THIRD VICE-PRESIDENT—Mrs. W. S. Riley, El Dorado.

FOURTH VICE-PRESIDENT—Mrs. L. K. Hundley, Pine Bluff.

SECRETARY—Mrs. R. E. Greene, Warren.

TREASURER—Mrs. V. T. Webb, Little Rock.

PUBLICITY SECRETARY—Mrs. Leo Aday, Little Rock.

HISTORIAN—Mrs. C. W. Garrison, Little Rock.

PARLIAMENTARIAN—Mrs. E. D. McKnight, Brinkley.

POET LAUREATE—Mrs. Geo. B. Fletcher, Hot Springs.

**COUNCILORS**

Mrs. L. G. Fincher, El Dorado.

Mrs. L. J. Kosminsky, Texarkana.

Mrs. A. C. Shipp, Little Rock.

Mrs. E. L. Thompson, Hot Springs

Mrs. Fred Hames, Pine Bluff.

**COMMITTEE CHAIRMEN**

ORGANIZATION—Mrs. Curtis Jones, Benton.

EDUCATIONAL AND PUBLIC HEALTH—Mrs. Fount Richardson, Fayetteville.

HYGEIA—Mrs. W. S. Riley, El Dorado.

PUBLIC RELATIONS—Mrs. L. K. Hundley, Pine Bluff.

PHYSICAL HEALTH EXAMINATIONS—Mrs. Ulys Jackson, Harrison.

MEMORIAL AND CHAPLAIN—Mrs. C. E. Kitchens, DeQueen.

DOCTOR'S DAY—Mrs. R. C. Dickinson, Horatio.

ILSE F. OATES STUDENT LOAN FUND—Mrs. C. E. Oates, Little Rock.

ARCHIVES—Mrs. William Hibbitts, Texarkana.

ERLE CHAMBERS MEMORIAL LIBRARY FUND—Mrs. C. F. Shukers, Little Rock.

BIOGRAPHY—Mrs. C. W. Dixon, Gould.

LEGISLATION—Mrs. Chas. R. Henry, Little Rock.

CONSTITUTION AND BY-LAWS—Mrs. C. A. Churchill, Batesville.

CANCER CONTROL—Mrs. W. R. Brooksher, Fort Smith.

BULLETIN—Mrs. H. L. Brown, Malvern.

POST-WAR PLANNING—Mrs. Preston L. Hathcock, Fayetteville.

JANE TODD CRAWFORD MEMORIAL—Mrs. G. D. Murphy, Jr., El Dorado.

FINANCE—Mrs. B. A. Rhinehart, Little Rock.

COUNCILWOMAN TO THE SOUTHERN MEDICAL ASSOCIATION—Mrs. J. P. Price, Jr., Monticello.

**COUNCILWOMEN AND DISTRICTS**

FIRST—Clay, Crittenden, Craighead, Greene, Lawrence, Mississippi, Poinsett and Randolph counties. Mrs. P. W. Lutterloh, Jonesboro.

SECOND—Cleburne, Fulton, Independence, Izard, Jackson, Sharp, Stone and White counties. Mrs. L. T. Evans, Batesville.



THIRD—Arkansas, Cross, Lee, Monroe, Phillips, Prairie, Saint Francis and Woodruff counties. Mrs. Erner Jones, Brinkley.

FOURTH—Ashley, Bradley, Chicot, Cleveland, Desha, Drew, Jefferson and Lincoln counties. Mrs. Robert Dickins, Pine Bluff.

FIFTH—Calhoun, Columbia, Dallas, LaFayette, Ouachita and Union counties. Mrs. M. V. Russell, El Dorado.

SIXTH—Hempstead, Howard, Little River, Miller, Nevada, Pike, Polk and Sevier counties. Mrs. C. A. Archer, DeQueen.

SEVENTH—Clark, Garland, Hot Spring, Montgomery and Saline counties. Mrs. W. G. Hodges, Malvern.

EIGHTH—Conway, Faulkner, Grant, Lonoke, Perry, Pope, Pulaski, Van Buren and Yell counties. Mrs. E. I. Thompson, Little Rock.

NINTH—Baxter, Boone, Carroll, Marion, Newton and Searcy counties. Mrs. J. G. Gladden, Harrison.

TENTH—Benton, Crawford, Franklin, Johnson, Logan, Madison, Sebastian, Scott and Washington counties. Mrs. G. R. Siegel, Clarksville.

### SPECIAL COMMITTEE—LOCAL

GENERAL CHAIRMAN—Mrs. J. Harry Hayes.

REGISTRATION—Mrs. R. E. McLochlin.

ENTERTAINMENT—Mrs. Robert D. Jones.

FLOWERS—Mrs. Henry G. Hollenberg.

TICKETS—Mrs. Mahlon D. Prickett.

COURTESY—Mrs. Erner Jones.

TRANSPORTATION—Mrs. Fred Harris.

HOTEL RESERVATIONS—Mrs. J. Donald Hayes.

### COUNTY PRESIDENTS

Arkansas—Mrs. W. T. Champion, Stuttgart.

Benton—Mrs. G. C. DeBolt, Rogers.

Bowie-Miller—Mrs. W. L. Kitchens, Texarkana.

Craighead-Poinsett—Mrs. M. E. Blanton, Jonesboro.

Crittenden—Mrs. T. S. Hare, Crawfordville.

Garland—Mrs. H. G. Jackson, Hot Springs.

Hempstead—Mrs. Jim McKenzie, Hope.

Hot Spring—Mrs. W. F. Barrier, Malvern.

Independence—Mrs. O. J. T. Johnston, Batesville.

Jackson—Mrs. J. B. Jackson, Newport.

Jefferson—Mrs. L. K. Hundley, Pine Bluff.

Johnson—Mrs. Guy Shrigley, Clarksville.

Monroe—Mrs. E. D. McKnight, Brinkley.

Ouachita—Mrs. R. C. Kennerly, Camden.

Pulaski—Mrs. J. K. Donaldson, Little Rock.

Sebastian—Mrs. H. H. Smith, Fort Smith.

Sevier—Mrs. C. E. Kitchens, DeQueen.

Union—Mrs. Frank Clark, El Dorado.

Washington—Mrs. W. A. Fowler, Fayetteville.

Southeast Arkansas—Mrs. H. T. Smith, McGehee.

Ninth Councilor District—Mrs. D. K. McCurry, Green Forest.

### PROGRAM

THURSDAY, APRIL 15, 1948

Mezzanine Floor, Albert Pike Hotel

9:00 A. M.—REGISTRATION.

10:00 A. M.—PRE-CONVENTION MEETING OF THE FINANCE COMMITTEE—Mrs. B. A. Rhinehart, Chairman.

11:00 A. M.—EXECUTIVE BOARD MEETING—Parlor.

12:00 Noon—EXECUTIVE BOARD LUNCHEON—Mirror Room.

INVOCATION—Mrs. C. E. Kitchens, DeQueen.

### GENERAL SESSION

Parlors A, B, C, Mezzanine Floor, Albert Pike Hotel

2:00 P. M.—OPENING OF SESSION—Mrs. J. K. Donaldson, President, Woman's Auxiliary to the Pulaski County Medical Society.

INVOCATION—Mrs. John M. Smith, Little Rock.

ADDRESS OF WELCOME—Mrs. Gordon Page Oates, Little Rock.

INTRODUCTION OF THE STATE PRESIDENT—Mrs. W. J. Hunt, Warren.

RESPONSE TO THE ADDRESS OF WELCOME—Mrs. M. C. Crandall, Wilmot.

REPORTS OF OFFICERS.

REPORTS OF CHAIRMEN.

REPORT OF THE FOURTH ANNUAL CONFERENCE OF THE WOMAN'S AUXILIARY TO THE AMERICAN MEDICAL ASSOCIATION—Mrs. Mason G. Lawson, Little Rock.

REPORT OF THE MEETING OF THE WOMAN'S AUXILIARY TO THE AMERICAN MEDICAL ASSOCIATION—Mrs. Fred Harris, Little Rock.

REPORT OF THE MEETING OF THE WOMAN'S AUXILIARY TO THE SOUTHERN MEDICAL ASSOCIATION—Mrs. J. P. Price, Jr., Monticello.

ANNOUNCEMENT OF SPECIAL COMMITTEES—Mrs. J. K. Donaldson, Little Rock.

REPORT OF THE REGISTRATION COMMITTEE—Mrs. R. E. McLochlin, Little Rock.

REPORT OF THE ENTERTAINMENT COMMITTEE—Mrs. Robert D. Jones, Little Rock.

### GENERAL SESSION

FRIDAY MORNING, APRIL 16

Albert Pike Hotel

8:30 A. M.—PAST-PRESIDENT'S BREAKFAST — Chairman, Mrs. B. A. Rhinehart, Little Rock.

9:30 A. M.—CALLING THE MEETING TO ORDER—Mrs. W. J. Hunt, President, Warren.

INVOCATION—Mrs. J. B. Crawford, Little Rock.

READING OF THE MINUTES.

ADDRESS—Dr. L. T. Evans, President, Arkansas Medical Society, Batesville.

REPORTS OF COUNTY AUXILIARIES.

REPORTS OF THE REGISTRATION AND CREDENTIALS COMMITTEE—Mrs. R. E. McLochlin, Little Rock.

ELECTION OF OFFICERS.

ANNOUNCEMENT OF THE ENTERTAINMENT COMMITTEE—Mrs. Robert D. Jones, Little Rock.

### MEMORIAL SESSION

Robinson Auditorium

(Joint Session with the Arkansas Medical Society)

FRIDAY MORNING, APRIL 16, 1948, 11:40 A. M.

### LUNCHEON—STYLE SHOW

1:00 P. M.

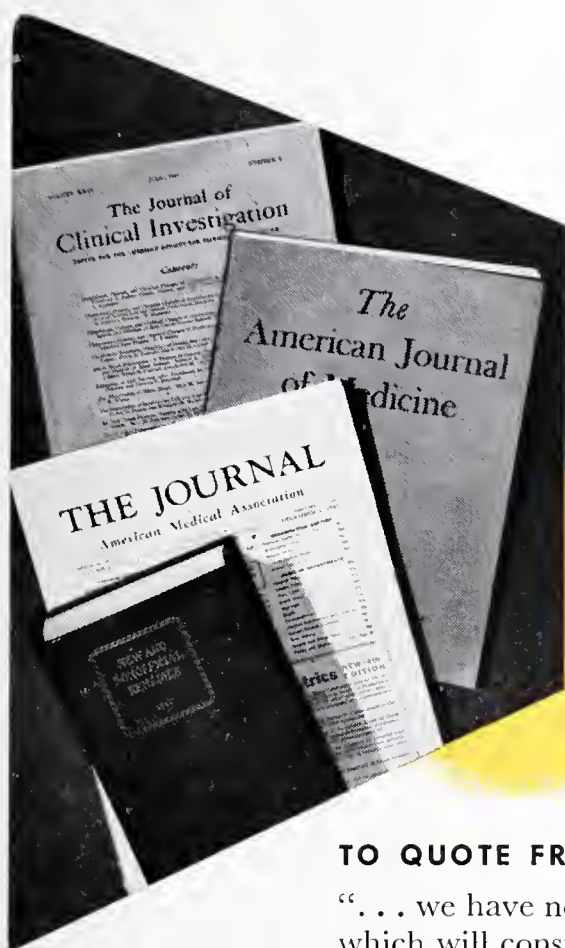
TOASTMISTRESS—Mrs. J. K. Donaldson, Little Rock.

INVOCATION—Mrs. A. C. Kolb, Little Rock.

INTRODUCTION OF PAST-PRESIDENTS.

INTRODUCTION OF STATE OFFICERS.





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## TO QUOTE FROM RECENT AUTHORITATIVE SOURCES:

"... we have not found any therapy other than gold therapy which will consistently and in a high percentage of cases change the course of the disease."<sup>1</sup>

"Gold therapy at present seems to be the only drug which shows promise of checking the activity of rheumatoid arthritis; ...."<sup>2</sup>

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"The high incidence of reactions attributable to the formerly employed larger doses . . . has been largely obviated by the use of more conservative doses."<sup>3</sup> Moreover, "therapeutic results are quite as good with smaller doses...."<sup>4</sup>



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Gold Sodium Thiosulfate must be used with extreme caution, especially in the presence of tuberculosis and diseases of the liver and kidneys.

1. Combined Staff Clinics of the College of Physicians and Surgeons, Columbia University: *Am. J. Med.* 1:675 (Dec.) 1946.
2. Comroe, B. I.: *J.A.M.A.* 128:848 (July 21) 1945.
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**SEARLE** RESEARCH IN THE SERVICE OF MEDICINE



INTRODUCTION OF THE WIVES OF OFFICERS OF  
THE ARKANSAS MEDICAL SOCIETY.

POEM—Mrs. Geo. B. Fletcher, Hot Springs.

UNFINISHED BUSINESS.

REPORT OF THE COMMITTEE ON COURTESY RESO-  
LUTIONS.

INSTALLATION OF OFFICERS.

PRESENTATION OF THE GAVEL—Mrs. W. J. Hunt.

ADDRESS OF THE INCOMING PRESIDENT—Mrs. Ma-  
son G. Lawson, Little Rock.

FRIDAY EVENING, APRIL 16

Hotel Marion

7:00 P. M.

SOCIAL HOUR—Pulaski County Medical Society.

8:00 P. M.

BUFFET DINNER

DANCING

## CORRESPONDENCE

TO: All Licensed Physicians of the State of  
Arkansas

FROM: Arkansas State Board of Health

SUBJECT: Arkansas Public Health Program and  
Policies

1. State Act No. 96, An Act for the Better Protection of the Public Health in Arkansas, created the Arkansas State Board of Health in 1913. This act was created and sponsored by the Arkansas State Medical Society.

**Section 5** of the act authorized the State Board of Health the general supervision and control of all matters pertaining to the health of the citizens of the State.

**Section 6** of the act authorizes the State Board of Health to make all necessary reasonable rules and regulations for the protection of the public health.

2. Your State Board of Health through the years has endeavored to carry out an efficient and recognized public health program in the seventy-five counties of the State, its chief function and efforts being in the field of preventive medicine.

3. During the years, your public health program has progressed. New health programs and health legislation have been cleared through the proper committees of the Arkansas State Medical Society, which has always served as an advisory body to the Arkansas State Board of Health.

4. During the years, it has been necessary for the Arkansas State Board of Health to cooperate with the United States Public Health Service and other federal agencies in establishing a standardized and recognized health program. Through this cooperation, Arkansas has received its fair share of federal grants as compared to other states in promoting and perfect-

ing its public health program. Without this cooperation Arkansas would not have received its fair share of available federal monies for the general public health program.

5. Your State Board of Health, including the State Health Officer, division heads, staff members and field workers, is firmly opposed to socialized medicine. We are as strongly opposed to the present pending congressional bills regarding socialized medicine as any other member of the medical profession is and should be. In many instances, both privately and publicly, we have discouraged favorable positive thinking for the socialization of medicine.

We do strongly favor and support the Arkansas Health Plan for hospital and surgical care which is sponsored by the Arkansas State Medical Society and the Arkansas Hospital Association.

6. The public health program in Arkansas has been able to develop only through the cooperation of physicians in private practice. Its further development is contingent upon their further cooperation. A strong public health program such as that planned by the Arkansas State Board of Health is your best assurance that there will not be a demand on the part of the public for legislation pertaining to medical care.

7. Local health units in the State have been organized for the purpose of rendering essential primary services of public health to the people. These services are as follows: Communicable Disease Control; Environmental Sanitation; Public Health Laboratory Services; Hygiene in Maternity, Infancy, and Childhood; Health Education; and Vital Statistics. To render the above named services, it is necessary that full-time modern health departments be established on a county, district, or regional basis.

It is therefore strongly recommended that the following resolution be approved and adopted by the Arkansas Medical Society:

RESOLVED, that the Arkansas Medical Society approve the complete coverage of the State's area and population by local, county, or district, full-time modern health services.

For obvious reasons, it is also strongly recommended that the Arkansas Medical Society approve and adopt the additional following resolution:

RESOLVED, that the State Constitution be amended to permit individual counties to assess a millage for public health purposes, such assessment to be optional with the counties and voted upon by the qualified voters.

Adopted by the State Board of Health in regular session in Little Rock, Arkansas, January 22, 1948.



# The JOURNAL OF THE ARKANSAS MEDICAL SOCIETY

Vol. XLIV

FORT SMITH, ARKANSAS, APRIL, 1948

No. 11

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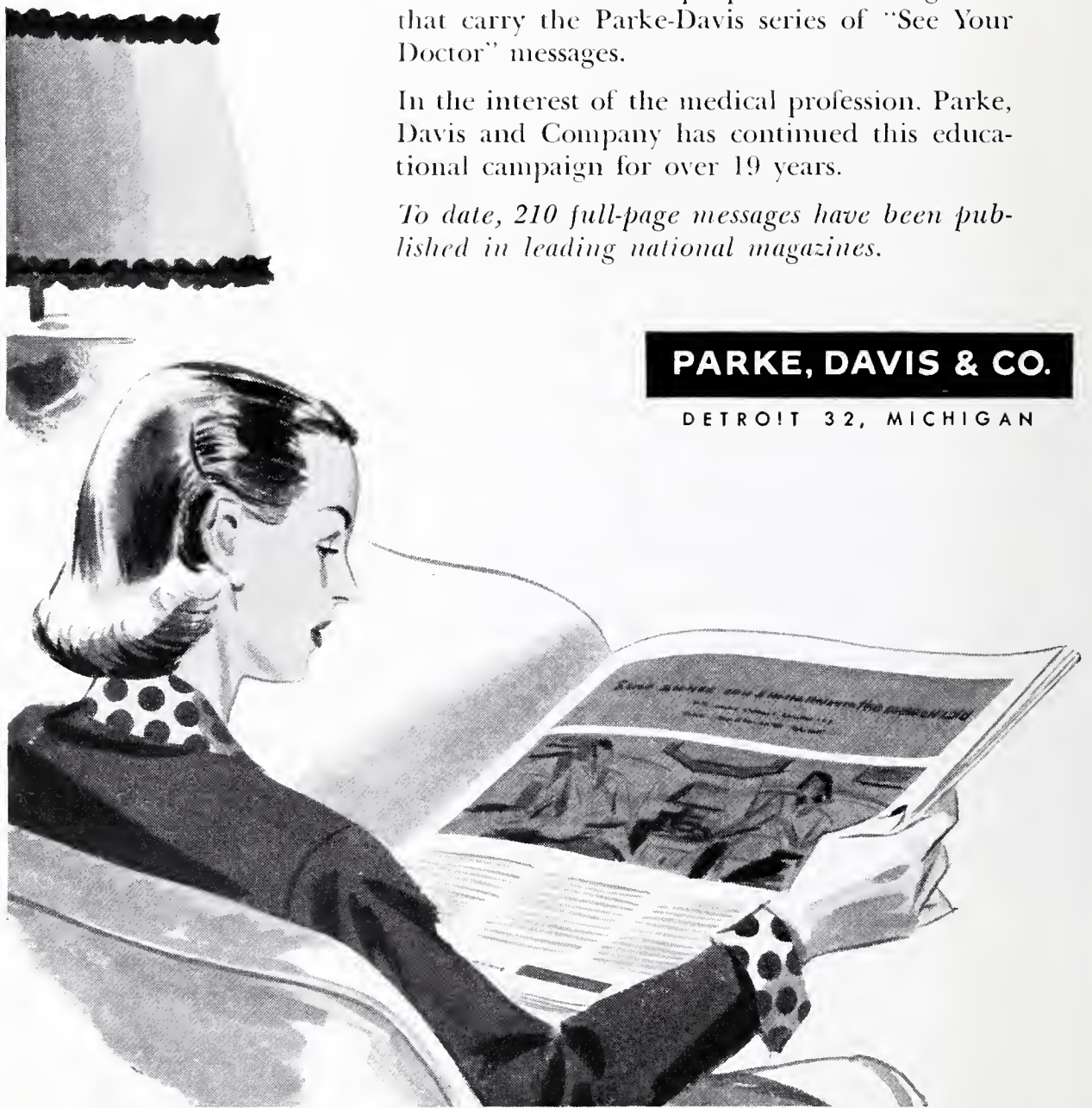
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# The JOURNAL

## OF THE ARKANSAS MEDICAL SOCIETY

PUBLISHED MONTHLY UNDER DIRECTION OF THE COUNCIL

Vol. XLIV

FORT SMITH, ARKANSAS, APRIL, 1948

No. 11

### A CONSIDERATION OF THE PHYSIOLOGY OF HYPERTENSION\*

ALFRED H. LAWTON, M. D., Ph. D.\*\*

Grand Forks, North Dakota

Hypertension is a condition occurring in 6-20% of the population of this country in which arterial pressures are higher than those values considered to represent the normal range. Systolic blood pressures above 150 mms. of mercury and diastolic blood pressures above 90 mms. of mercury are usually considered indicative of hypertension.

Hypertension is a symptom or sign and not a disease entity. Also, the cause of hypertension is not single but multiple and these causes differ as widely from one another as do the causes of various infections. Any discussion is tentative because at best it is a consideration of research done prior to the discussion. As new discoveries are made and new facts elucidated many of the present concepts will be altered.

That hypertension is complex is illustrated by a consideration of a classification given by Gilchrist (1) and quoted in White's book (2). He divides the causes primarily into extra-renal and renal factors.

The extra-renal origin of hypertension is again subdivided into neurological, endocrinal, and peripheral causes. Those factors considered as neurological are emotional or psychic states, increased intracranial pressure, mid-brain and brain stem lesions, and the diencephalic syndrome. Harmonal imbalances, as etiologic factors in hypertension, occur primarily in the supra-renal glands, in the pituitary gland, in the ovaries, and questionably, in the placenta. Those factors considered as peripheral origins are external

toxic agents, internal toxic agents, and certain unknown factors which produce essential hypertension. This last cause of hypertension may be wrongly placed as of non-renal origin for many investigators claim to show that it is truly of renal origin.

All of the etiologic factors of hypertension listed as renal have to do with the production of renal ischemia. These are subdivided into occlusive vascular disease, primary renal disease, and impedance to urinary flow such as occurs with hydronephrosis.

Certain physiological factors are known to be responsible for the maintenance of normal blood pressure. Some of these are cardiac output, blood volume, blood viscosity, arterial elasticity, and the condition of the peripheral vascular bed. Ivy and McEwen have summed up how these may be related to hypertension (3).

Usually there is no increase in minute volume output of the heart although it does rise normally with exertion and pathologically in hyperthyroid hypertension. The body's compensatory mechanisms are such that usually no rise in blood pressure occurs with increased blood volume, although if this hypervolemia is long continued it may lead to successive overfilling of the heart, increased cardiac output, cardiac hypertrophy, and hypertension. An increased blood viscosity such as occurs in polycythemia, may give rise to elevated blood pressure but definite systolic hypertension will not occur unless arteriosclerosis coexists.

Diminution in the elasticity of large arteries leads to a rise in systolic blood pressure and a falling diastolic blood pressure. This loss of elasticity usually coexists with the narrowing of the peripheral vascular bed. If this narrowing is localized, as with a coarctation of the aorta, there is an elevated blood pressure proximal to the lesion and a hypotension distal to the lesion.

The usual and most important change in the peripheral vascular bed is a narrowing of the arteriolar portion. The narrowing may be on an organic basis and be limited either to a single

\* Read in symposium before the Seventy-First Annual Session, Arkansas Medical Society, Little Rock, April 18, 1947.

\*\* Formerly Assistant Professor of Medicine and Assistant Professor of Physiology and Pharmacology, University of Arkansas Medical School.



organ, which rarely produces hypertension, or may be generalized as in essential hypertension. The narrowing may be on a psychic basis as with emotional hypertension or may be on a central basis as seen in the asphyxial anoxic rise in blood pressure. Finally, the narrowing may be on a hormonal basis. Examples of this are the paroxysmal hypertension caused by an adrenal pheochromocytoma, the hypertension with Cushing's syndrome, and the renal hypertension due to pressor substance from the ischemic kidney.

In order to discuss the etiology of hypertension it is best to consider it in three groups; the predisposing causes, the provoking causes, and the perpetuating causes.

The predisposing causes are well recognized though their specific roles are obscure. Heredity is of great importance but this is an inherited predisposition to hypertension rather than a true inheritance of the condition. Hypertension is most common in middle age and after and is twice as common in females as males. However, it is more serious in males as hypertensive heart disease and hypertensive mortality is twice as common in the male. Hypertension is less marked in tropical and semi-tropical countries. Variations in its occurrence appear in certain nationalities for the Chinese show little hypertension, although it is uncertain whether this is due to race, tempo of life, or diet. Negroes in the United States show twice as much hypertension as do the whites but in Africa the Negro shows little hypertension. This may be due to the lesser life expectancy of the Negro in Africa. Various dietary factors have been blamed for hypertension but the only proved relationship is the inconsistent one between overeating and obesity and a predisposition to hypertension.

Provoking causes of hypertension may be endogenous or exogenous toxic factors, physical strain, endocrinal disturbances, and nervous tensions. Frequently an infectious process is the trigger mechanism that releases true hypertension. Lead and other exogenous poisons have been condemned but of late have been given a tentative reprieve from the role as provokers of hypertension. Acute or unusual physical strain is blamed for precipitating hypertension but physical exertion in moderation is protective from, rather than provocative for, hypertension. Endocrinal states associated with provoking hypertension are manifold. Examples are Cushing's syndrome of the pituitary, adrenal cortical tumors, and hyperthyroidism. The nervous factors are probably the most important provocative

factors contributing to the wear and tear responsible for hypertensive disease. Each year its rate increases proportionately with the rapid pace of civilized life and the augmented complexity of the present competitive struggle for security.

The major research on hypertension at present is concerned with efforts to determine and understand the perpetuation causes of hypertension. The vastness of this research is indicative of the incompleteness of present-day understanding. Certain of these lines of investigation are significant. In order to discuss the physiology of hypertension several of these must be considered.

The daily injection of broth cultures of various streptococci derived from the urine of patients with hypertension has been showed to produce hypertension in 73% of 42 dogs (4).

Nervous stimulation by means of audiogenic stimulation of rats frequently produces chronic hypertensive states (5). Sectioning of all four moderator nerves in dogs leads first to an acute and then to a chronic hypertension completely different from renal hypertension (6).

The adrenal gland has been blamed for hypertension by workers who consider the elevated blood pressure partly due to a hyperepinephrinemia (7), by workers who in some cases have found renal pheochromocytomas to account for the hypertension (8), and by workers who blame a sensitized adrenosympathetic mechanism for lowering the threshold to pressor stimuli (9). This latter group believes that narrowing of the renal vessels, renal ischemia, and renal formation of a pressor substance occur early in the disease and that the adrenal changes occur secondarily to take over the maintenance of the hypertensive state.

Certain deficiency states, such as hypoproteinemia, or deficiency of vitamins A or B<sub>1</sub>, are blamed for producing hypertension. Specific replacement therapy is said to alleviate the symptom. Likewise the decrease in normal circulating thiocyanate is associated with hypertension (10). In such a hypertensive deficiency state the use of thiocyanate for treatment would then be regarded as substitution therapy.

The relationship of the kidney to hypertension has been the most widely studied etiologic factor. Goldbatt (11) noted that the majority of patients with essential hypertension that came to autopsy showed renal arteriolar sclerosis. In



order to reproduce the effects of the arteriolar disease he applied constricting clamps to the renal arteries or to one artery and the opposite ureter of dogs and succeeded in producing permanent hypertension. He was never able to produce permanent hypertension in dogs by unilateral renal manipulation. Others (12) using rats have been able to produce a unilateral renal hypertension. This and subsequent research proved that unilateral and bilateral renal disease may cause hypertension, probably by ischemia which releases a humoral mechanism postulated as renin combining with pseudoglobulin to give a vasoconstrictor compound known as hypertensin or angiotonin. A wave of nephrectomies inevitably followed the description of renal hypertension with resultant disillusionment. Similarly, failure to find so-called Goldbatt kidneys at the autopsy of hypertensive persons caused a sober realization that the final and only cause of hypertension had not yet been found. However, in a small portion of cases of hypertension compression of the renal pedicle gives a clinical reproduction of the Goldbatt kidney. Relief of the hypertension in such cases will follow a unilateral nephrectomy unless the kidney is functionless. In that case surgery is too late because the presence of chronic hypertension will have produced irreversible arteriolar changes in the opposite kidney.

Shortly after Goldbatt clamps are applied to renal arteries the increased cardiac action has returned the total blood flow in the kidney to normal but the pulse pressure is decreased so that some areas of the kidney receive an inadequate blood supply. This irregular distribution allows the vasoconstrictor substance, renin, or its precursor to be built up. Some advocates (13) of sympathectomy for the treatment of hypertension believe this operation equalizes the blood supply to the kidney by increasing the pulse pressure and thus prevents an elaboration of angiotonin precursor. Of course this arteriolar dilatation can occur only when there is a reversible spasm and not in the presence of sclerosis or hypertrophy of the vessel wall.

Rather than believing that an ischemic kidney produces a humoral pressor substance others believe either that the ischemic kidney produces faulty deamination of certain amino acids giving rise to pressor amines (14) or that renal hypertension is caused by a decrease in the activity of certain oxidative enzymes which normally destroy pressor substances present in the circulation (15).

In microscopic studies of the kidneys two groups of cells are seen which have been related to hypertension (16). In the preglomerular region of the afferent arteriolar cells intermediate between muscle cells and epithelioid cells are seen. Although hypertrophy of these cells has been described in human and experimental hypertension and it has been suggested that they secrete renin there is probably no direct relation between hypertension and hypertrophy of the epithelioid cells. In the angle between the afferent and efferent arterioles are cells said to be of nervous origin which are likewise said to hypertrophy in hypertensive conditions. Lack of regular anatomic relationship makes this doubtful in spite of the fact it has been suggested that they normally regulate glomerular flow.

From the tremendous volume of research on hypertension one can only safely conclude that in bilateral renal disease the kidneys may be causative for a rise in blood pressure whereas in other hypertensive conditions they are the victims of the disease.

Rather than stopping with a purely theoretical discussion the classification of Page (17) is given as a useful one for clinical purposes. It avoids the chaotic discussions of the etiology of hypertension.

(a) Simple vasomotor lability—usually emotional and non-progressive.

(b) Prehypertension—same as above but progressive.

(c) Neurogenic hypertension—established hypertension with signs and symptoms of nervous hyperactivity.

(d) Essential hypertension—established hypertension on a humoral basis.

For the differential diagnosis of the last two groups it may be pointed out that a high spinal anesthesia decreases blood pressure and increases renal blood flow in neurogenic hypertension but does not do this in humoral hypertension.

From the above discussion it can be seen that the problem of hypertension is still imperfectly understood. Much of the existing confusion may be due to the constant attempts to make single etiologic and pathologic factors explain all of hypertension. More probably, the problem of hypertension is like that of cancer in that many different causes can give rise to the symptom complex, hypertension.

(Continued to Page 238, Second Column)



## REPORT OF A CASE OF DIABETIC GANGRENE TREATED WITH VITAMIN C AND HISTIDINE

FOUNT RICHARDSON, M.D.

Fayetteville, Arkansas

Recently,\* some cases of endarteritis obliterans were reported by Wirtschafter and Widmann in which they used a combination of vitamin C and histidine. About that time a patient entered the City Hospital, Fayetteville, Arkansas, with a diabetic gangrene of the right great toe. Since there is some similarity, it was decided that we should try the same therapy in this case. The results were so good, it is felt that a report of this case should be made.

### Case of Mrs. H.M.D.; W. F. 63

Entered the hospital March 7, with an advancing diabetic gangrene of the right great toe. There was an extremely foul odor from the toe and pieces of the bone were lifted out with the dressing forceps. The blood studies showed: Sugar 240 mg.; Kahn negative; NPN normal; WBC slightly elevated; RBC slightly lowered.

There was a history of a burn on this toe January 1, 1947, which had refused to heal and the lesion progressed until the first of February when she sought medical aid and her physician found sugar in the urine. In October and November of 1946, she had had urinalyses made and all reports were negative. When the sugar was found, she was put on first 15, then 30 units of insulin. The disease progressed and by the first of March she entered the hospital for clearing up of the infection with penicillin and to have an amputation.

### Course in Hospital

Thirty thousand units of penicillin were given every three hours for a week and much of the infection and drainage was checked. At the same time her insulin was increased to 80 units per day and a careful check made on her urine. She was given aminophyllin, 1½ grains, every four hours and four mg. of nicotinic acid daily. Since she reported some flushing of the hands and feet from the nicotinic acid and aminophyllin, this therapy was continued and we began to drop her insulin. A few mild insulin-shocks were experienced during this time.

After a basal of insulin-carbohydrate ratio had been established, we began giving vitamin C and histidine injections every eight hours, day and night, continuing it for 16 days. There was remarkable improvement after the first week. The odor from the toe disappeared by the 14th day

of treatment, the insulin need declined from 60 units to 35 units per day and the four ulcerations about the toe began to heal. The injection treatment was discontinued on the 16th day but vitamin C tablets and nicotinic acid tablets were continued up to the time of discharge.

On the day of discharge, the patient was using 30 units of insulin, keeping up the vitamin tablets mentioned above and taking six grains of aminophyllin during the day. One ulcer remained on the toe, draining moderately. The patient was on her feet, had gained 10 pounds of weight and the circulation in the feet and hands seemed normal.

\* J.A.M.A.: Vol. 133; No. 9; P. 604.

Sick children present a two-fold problem in respect to growth and maintenance of body tissue: (1) repair of the damage wrought by disease, and (2) provision of the nitrogen needed for the growth processes, which persist in their demands during periods of illness. Hence, the physician may wish to prescribe large amounts of protein. Protenum is a highly palatable high protein food—low in fat. In the form of a beverage or in various recipes. Protenum will increase the protein intake without adding appreciable bulk to the diet.

For literature and professional samples of Protenum, write Mead Johnson & Co., Evansville 21, Indiana.

(Continued from Page 237, Second Column)

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## MEDICAL ASPECTS OF ESSENTIAL HYPERTENSION\*

DRIVER ROWLAND, M. D.  
Hot Springs National Park

In considering the treatment of hypertension it is well to think for a moment of the aim of such treatment. Is it the blood pressure *per se* that we are treating, or is it the primary symptoms resulting from this increase in blood pressure? In the average case it is neither. The increase in pressure alone, unless it occurs very suddenly as in the paroxysmal hypertension such as seen in adrenal medullary tumors or in the vascular crises of *Pal*, is not necessarily significant. Also, symptoms due to this increased pressure are of variable significance, and in some circles it is questioned whether symptoms are often, if ever, due to increased pressure alone. I am of the opinion that most symptoms attributed to hypertension are due to a concomitant neurosis all too often engendered and amplified by suggestions of well-meaning physicians. I have arrived at these conclusions by observing the lack of correlation between the height of the blood pressure and the complaints of these patients. In other words, if hypertension occurs in a stable individual he is likely to be symptomless, whereas if it occurs in an unstable or neurotic individual he has symptoms of this neurosis which are all too frequently attributed to hypertension.

What, then, should be our aim in treating this disease? Theoretically it should be to prevent the cardiac, cerebral, and renal complications which always result provided the disease is present long enough. Therefore, treatment must be a long-range process and not for only a few days or a few months. It does little good to bring down the blood pressure for a short time then have it go up in spite of continued treatment. This is our usual experience with the medications we have at present.

Not knowing the etiology of the disease we are severely handicapped as to therapy. When, ultimately, the cause is found, the proper therapy undoubtedly will soon be discovered. By far the largest factor is a hereditary one, and I believe that other factors usually blamed, such as the stress and strain of our mode of life, diet, obesity, and others usually invoked, are secondary ones, acting on this common substrate. Obviously,

since we cannot pick our ancestors, little can be done with this important factor.

Drug therapy in this disease can be dealt with summarily by saying that at present we have no drug that will consistently lower the blood pressure and keep it at a low level. The nitrates, while prescribed frequently, are of little, if any, benefit. Purine derivatives probably owe their results to the barbiturates with which most are combined. This leaves us the thiocyanates about which there is a marked divergence of opinion as to their efficacy. Most men believe they have a place in treatment, and think that headache, dizziness, and other symptoms are alleviated by their use. However, the drawbacks to this therapy are several—mainly that these drugs exhibit severe toxicity, even resulting in death. Therefore, if used, the blood cyanate level must be followed at weekly or biweekly intervals. The blood level should be kept under 15 mgs. per cent, but even then toxic reactions and death have occurred at this so-called "safe level." So, even at the best cyanates are not recommended unless adequate laboratory facilities are available for blood level determinations.

During the past year I have been interested in diet as a factor in hypertension. Dietary restriction is not new, and at one time or another almost every element in the diet has been interdicted. Most have since been found to have no effect on the blood pressure, whether given in restricted or excessive amounts. Two diets, however, are of interest, and I would like to comment briefly on them. These are:

- (1) The so-called Rice Diet.
- (2) The Salt-free or Low Sodium Diet.

The idea of restricting the amount of salt in the diet is not a new one. It was first advocated by Ambard, a Frenchman, in 1905, and since that time has become the accepted method of treatment in France. Allen and Sherrill in this country have been the chief advocates, and as long ago as 1920 believed that not only could the blood pressure be lowered by salt restriction but that the serious cerebral, cardiac, and renal complications could be prevented by the continuance on this diet. They reported that in 18.9% of patients the blood pressure was restored to normal, in 41.9% distinct therapeutic success was obtained, transitory benefit in 8.9%, and no benefit in 30.9%. Other investigators had been unable to confirm these results until Grollman and Harrison on a very restricted sodium diet were able to induce a very significant drop in the blood pressure in a goodly

\* Read in symposium before the 71st Annual Session, Arkansas Medical Society, Little Rock, April 18, 1947.



proportion of patients. Other investigators have since confirmed these results, finding, on the whole, benefit in something over 50% of patients treated with this type of diet.

Kempner in 1944 introduced the rice diet, probably with the rationale that since hypertension is rare in the Chinese in their native China, and since the main article in their diet is rice, there might be some element in rice that opposes an increase in blood pressure. Kempner's results in a large series of cases have been dramatic, and in some cases spectacular. In 73% of his cases the diet was of marked to moderate benefit. If one analyzes the elements in such a diet, he finds it contains 2,000 calories, about 5 gms. of fat, 20 gms. of protein, .2 gms. of chloride, and .15 gms. of sodium. I am impressed with the low sodium content of this diet, and believe that this is the basis for the beneficial results obtained. There is one advantage in this diet over the ordinary low sodium one—namely, it is a low fat, low cholesterol diet, and, therefore, may be useful in treating coronary disease and arteriosclerosis in general, which so often accompanies essential hypertension. This is true, if it can be confirmed, as some investigators believe, that diet can control the cholesterol level in the blood, and, in turn, the deposition in various arteries in the body, thus inducing arteriosclerosis. This latter idea still lacks convincing proof, but I believe more and more competent physicians are coming to believe in this possibility.

I would like to give a very brief resume of my experiences with these type diets. My experience has been limited to a very small series of cases, but which I believe have been well controlled.

Case I. Mrs. C. M., age 57, duration of hypertension 10-12 years. The patient was symptomless until a year ago, though she had had periodic headaches for years, usually occurring at time of menstrual periods. The past year her headaches had been more frequent, and she had occasional dizzy spells. Patient felt well otherwise. Her blood pressure was found to vary between 180/120 and 200/130, Grade II arteriosclerotic retinal changes were noted, and an electrocardiogram showed evidence of left ventricular strain. A salt-free diet was begun June 28, 1946. One month later the patient was symptom free, blood pressure 150/90; two months later, blood pressure 138/88; three months later, blood pressure 138/88; four months later, blood pressure 140/88.

The patient was lost sight of for four months, during which time she had stopped the diet, but still using no salt at the table or in the preparation of her food. Her blood pressure at this time was 160/90, and she was still symptom free.

Case II. Mr. E. M. H., age 57, white male. The patient was a known hypertensive of many years' duration. Two years ago the patient had dizzy spells which cleared-up under treatment. Lately these had returned, but to a less severe degree. He had moderate dyspnoea on exertion and slight swelling of ankles in the afternoons. On examination the blood pressure was found to be 170/100 to 200/110, pulse 80, respiration 16, Grade II arteriosclerotic changes of the retinal vessels. An electrocardiogram was within normal limits. The fluroscope showed evidence of slight left ventricular enlargement. Urinalysis showed no abnormal findings. The patient was placed on a low sodium diet on November 9, 1946, at which time his blood pressure was 182/95. One week later his blood pressure was 170/90; two weeks later, 145/90, and at the end of three weeks, 140/90, at which time he was placed on a modified diet. The patient was last seen in February of '47, at which time his blood pressure was 153/90, still continuing on the modified diet.

Case III. Mrs. E. V., a nervous, maladjusted white female of 49 years. The patient gave a history of hypertension for five years with a blood pressure as high as 210 systolic. In November, 1946, the patient's father died, at which time she had a fainting spell, and was found with a blood pressure of 195 systolic. At the time of examination the patient felt well, but was worried about her blood pressure. Examination showed the blood pressure to be 170/100—190/100, pulse 84, no other positive findings. On a re-check two days later her blood pressure was 170/100; the patient was placed on a salt-free diet. Two weeks later her blood pressure was 160/90; one week later, 150/80, and it has varied between this latter figure and 160/90 on a modified low sodium regimen.

Case IV. Mr. W. L., age 54, white male. The patient is a known hypertensive of several years' duration. Two years ago he had a stroke involving the left side, and has been paralyzed since that time. He complained of daily occipital headaches, sometimes very severe, otherwise no complaints. On examination the blood pressure was 210/140—220/145; there was a left-sided hemiparesis; Grade II arteriosclerotic changes of the retinal vessels were noted; the heart was



enlarged with a tambour second sound at the aortic area; the urine showed a trace of albumin and a few hyaline casts. The patient was placed on a low salt diet. He returned one week later with a blood pressure of 170/120, and stated that he was feeling better and that his headaches had entirely disappeared. This patient was seen last only a week ago, and I do not know what his subsequent course will be.

Case V. Mrs. M. K., age 43, white female. The patient had numerous complaints with none that were considered those usually associated with hypertension, but she is a known hypertensive of five years' duration. On examination her blood pressure on four consecutive days varied from 210/140 to 230/150; there were no other significant findings. Three weeks later on a hit or miss low salt diet her blood pressure was 170/108. Later the patient would not follow the diet, but when subsequently hospitalized, she was found to have an extreme labile blood pressure, varying from 140/80 to 200+/130. This case should probably not be included in this series, first, because of the extreme lability of the blood pressure, and, second, the patient's lack of cooperation.

Case VI. Mrs. J. S., age 49, white female. The patient is a known hypertensive of five years' duration with a blood pressure ranging as high as 280 systolic with coronary artery disease manifested by angina pectoris, also accompanied by a severe menopausal syndrome. Her blood pressure ranged between 230/120—250/140. An attempt was made to use the diet here, but, I suspect because of economic conditions, as well as her educational status, strict adherence was impossible, at any rate, there was no success whatever in reducing the blood pressure; it remained at the same level.

Case VII. This case should be mentioned in passing. The patient was a white male, age 40, very obese, who was seen a year ago in congestive failure with a blood pressure ranging from 170-180/110, and who had at times previously carried a blood pressure as high as 200 systolic, and who was found to have polycystic kidney disease. He was placed on a low sodium diet in conjunction with other measures for this failing myocardium. When seen a year later, whereas clinically he was in about the same condition as on his previous visit, the blood pressure had dropped to 138/85, and it remained at this level during the second period of observation.

In only one case have I used the rice diet, this was in an elderly male, 69 years, with malignant hypertension, blood pressure ranging between 240/140 to 260+/180, albuminuria, N.P.N. 85 mgs. per cent, typical retinoscopic findings, etc. On an ambulatory regimen for three months, consisting of an attempted salt-free diet and all known medications, no benefit was derived. When hospitalized, but still ambulatory, and placed on the rice diet the blood pressure was reduced to between 184/92-210/110, the urinary findings cleared-up, all symptoms disappeared, eye grounds improved, and signs of beginning congestive failure cleared-up.

The average reduction in these cases, if we leave out Case VI, which I do not believe was well controlled, was 43 mm.m. systolic and 31 diastolic. This, I believe, is a significant reduction, and would tend to support the contention that in certain cases the low sodium or rice diet will materially reduce blood pressure.

The reason why a low sodium or rice diet tends to improve hypertension is not known. It is perhaps tied-up with the adrenal cortex as it is known that one of the cortical hormones controls salt metabolism. In this connection we know that in Addison's disease treated with desoxycorticosterone acetate that a certain number of cases develop hypertension, anasarca, and cardiac failure, which can be prevented by salt restriction. Also, Perera and Blood have shown that there is a disturbance in salt and water metabolism in hypertensive vascular disease since hypertensive subjects do not lose weight nor have an increased urinary output as do normal controls on rigid restriction of sodium in the diet. They suggest this difference may be referred to primary renal changes, or more likely to changes in the kidney mediated by the adrenal cortex.

Therefore, it is not only of interest that salt restriction will lower blood pressure but that this opens up an entire new field for the understanding of essential hypertension, and may ultimately lead to the solution of this vastly interesting and important problem.

### Conclusions

1. The treatment of hypertension must be conceived of as a long-range project which must be directed over a period of years and aimed at preventing the ultimate development of cardiac, cerebral, and renal complications.
2. Most cases of hypertension are symptomless until these complications occur, and symp-



toms that are present are most often not due to the increase in blood pressure.

3. There is no medicine at present that will consistently lower blood pressure and keep it at a low level.

4. In a certain percentage of cases either the low sodium diet or so-called rice diet will lower the blood pressure.

5. This latter fact may open up an entire new field for research in the understanding of this interesting and all too frequent disease.

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#### PROCEEDINGS OF SOCIETIES

Randolph County Medical Society has elected the following officers: President, W. E. Hamil; vice-president, J. W. Brown; secretary-treasurer, M. A. Baltz; delegate, W. O. Loftis, and alternate, M. A. Baltz.

Columbia County Medical Society has elected the following officers: President, John L. Ruff; vice-president, H. H. Kitchens; secretary-treasurer, John H. Wilson; delegate, E. G. Burt, and alternate, John H. Wilson.

Craighead-Poinsett County Medical Society was addressed March 4th by James Growdon and W. G. Cooper, Little Rock, on "The Thyroid."

J. H. McCurry, Secretary.

Lt. Col. Virgil Kim, unit instructor, Organized Reserves, United States Army, presented motion pictures and addressed the Sebastian County Medical Society March 9th on "The Evacuation Hospital."

J. K. Thompson, Secretary.

The Ouachita County Medical Society met in regular monthly dinner session at the Camden Hospital March 12. The following program was given: Medical motion pictures, "Melanoma" and "Malaria"; "Comments on Diabetes," Joe Roberts, dean, University of Arkansas School of Medicine; "Everyday Explanation of X-ray Terminology," Isidore Meschan, professor of radiology, University of Arkansas School of Medicine.

R. B. Robins, Secretary.

Lafayette County Medical Society has elected the following officers: President, F. E. Baker; secretary-treasurer, A. W. Keith; delegate, A. W. Keith, and alternate, R. L. Armstrong.

The Five-County Medical Society, comprising the members in Polk, Sevier, Little River, Howard and Pike counties, was organized at a dinner meeting held in DeQueen March 10th, with the following elected officers: Edwin Dildy, Nashville, president; E. L. Callahan, DeQueen, vice-president and Norman Peacock, Ashdown, secretary. The scientific program was presented as follows: "Low Peritoneal Caesarean Section" (motion picture), E. T. Ellison; "Biliary Tract Diseases," Gilbert Dean; "The Use of Propylthiouracil in Thyrotoxicosis," James Crowdon, and "The Treatment of Infantile Pylorospasm," W. A. Reilly, all speakers of Little Rock.



# THE JOURNAL

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## EDITORIAL

### APRIL IS CANCER MONTH

The month of April has been designated as "Cancer Month." It is during April that the American Cancer Society, through its state divisions, makes its annual campaign for funds.

Arkansas physicians are familiar with the activities of the Arkansas Division, American Cancer Society. It has fostered diagnostic cancer clinics in all sections of the state, has conducted a continuous campaign of education of the laity, has participated in postgraduate courses and lectures for the practitioner and furnishes transportations, domiciliary care and dressings for indigent cancer patients. Its work has been most meritorious.

Members of the Society can materially assist in the campaign for needed funds by their words of support as well as by their personal contributions.

### NATIONAL CONFERENCE OF COUNTY MEDICAL SOCIETY OFFICERS

The second annual Conference of County

Medical Society Officers held under sponsorship of the American Medical Association, will convene at the Palmer House, Sunday, June 20th, in advance of the annual session of the American Medical Association. One county medical society secretary, Dr. J. H. McCurry, of the Craighead-Poinsett County Medical Society, attended the 1947 conference in Atlantic City. It is hoped that the more convenient location of the 1948 conference in Chicago will facilitate attendance by a large number of Arkansas County Medical Society officers. Among the subjects to be presented are: "The County Medical Society—Its Part in Medical Organization; Its Responsibility to the Membership; Its Responsibility to the Public." Dr. R. B. Robins, Camden, is state chairman of the conference from Arkansas and will be glad to answer inquiries on the meeting from interested county society officers in the state.

### THE ARKANSAS HEALTH PLAN

CHAS. R. HENRY, M. D.\*  
Little Rock

The Arkansas Health Plan now has enrolled members in virtually every county in the state.

This remarkable accomplishment was realized within six months after the plan began actual operation. It is largely the result of the enrollment of a number of groups of statewide significance and scope.

Total membership in the plan is approaching 8,000 persons and is expected to go well beyond this figure in the near future. Widest acceptance of the program, which is underwritten by the John Marshall Insurance Company, has been won among rural people.

The rapid spread of the plan through farm areas is considered unusual because of the scattered nature of the rural population. In other states rural enrollment in health insurance has lagged considerably behind the enrollment of industrial and business firms whose employees can be easily reached because they are concentrated at common places of employment.

The membership in Arkansas nevertheless is becoming increasingly diversified. One of the larger groups enrolled recently was the Crossett Lumber Company of Crossett. Employees of the Extension Service of the University of Arkan-

\* Chairman Committee on Medical Service and Public Relations.



sas throughout the state also have completed their enrollment.

Another recently-enrolled group consists of employees of the State Health Department. The schoolteachers of Pine Bluff were the first of their profession to obtain membership in the plan, but teachers in a number of other communities now have made arrangements to enroll. As reported previously, Farm Bureau enrollment has progressed rapidly, with nearly 20 groups in this category either belonging to the plan or in the process of enrolling.

Thus Arkansas Health Plan members now include industrial employees, governmental employees, educational employees, professional people and farmers. In addition to the sponsorship of the medical profession and the hospitals, the plan has won the endorsement of business, labor, farm and many other organizations.

Illustrative of the reception that has been accorded the plan is the attitude of the Farm Bureau Federation. Recognizing both the need for health protection of this type and the popular demand for it, the Federation has made plan membership one of the key factors in its own promotional program. Recently the Federation appointed four district supervisors to develop and extend the Farm Bureau program through membership drives and to assist in extending the Arkansas Health Plan service.

As an individual and in collective activities, the doctor remains in a position of predominant importance in contributing to the plan's growth. He can do a great deal to extend its benefits through his own community by familiarizing himself with the program and by discussing it with employers and with other leading citizens.

M. L. Daugherty, director of the Arkansas Health Plan, has paid repeated tribute to medical men for their part in the plan's phenomenal growth during its first six month's of operation. He will be glad to answer all inquiries directed to him at the Arkansas Health Plan, Waldon Building, Little Rock.

### RANDOM THOUGHTS OF THE SECRETARY

February 27th. Comes in the mail, the Kansas City specialist's road map showing the way to his new office location, an innovation in announcements not likely to receive the approbation of the Jackson County Medical Society.

March 4th. We note that "Dr. I. Q." got married in Camden. Anyone would have known that he did not go there to get the answers from Bob Robins.

March 5th. It will be no surprise to us that the Clarksville physicians shortly will advocate the liberal drinking

of goat's milk produced in Johnson County by the New York state emigrants.

March 7th. Up and early away through the Ouachitas as the morning sun shines on frosty ground and into Hot Springs where the largest crowd ever is present for the season. All afternoon with the committee interviewing individuals without the usual pertinent question of Earle Hunt, and selecting an executive secretary the committee feels will prove a most happy choice.

March 8th. Now comes a second Camden minister to write authoritatively on the basic science law.

March 20th. Frances and Charles Chamberlain open the summer porch season and then take us to dinner and afterwards listening to records but none of Stephen Foster's despite our insistence.

March 21st. The Council selects a full-time secretary and promptly initiates him into the intricacies and lengths of council discussion. Homeward with the Earle Hunts to Clarksville hearing of Earle's great-great grandfather, a block from which one chip remains to befuddle and confuse all of Johnson County.

### "DETAIL MAN"\*

Personally, we like most "detail men." In case you haven't had contact with one recently, may we refresh your mind on the subject. Were we Linnaeus, we might describe him thus: Genus: Homo Sapiens; Habitat: Distribution almost universal, but becoming scarcer in Middle West due to the draft and lack of enforcement of game laws. (Most Dox think there is a perpetual open-season on these chaps.) Description: A hardy perennial. (Webster's definition of perennial: "continuing or enduring through the year or many years.") And, Boy, does he continue to endure a lot!

Further description: This sub-order of Homo Sapiens not infrequently is married, and sires one or more little detailettes who depend upon the parent shrub for food and raiment. He has the customary complement of manual and pedal appendages; also, two ears, two eyes, two lungs and—believe it or not—a heart.

Usually he is a gentleman, which in itself is saying a lot. Obviously this rare specimen has an inexhaustible fund of patience, otherwise he would not be willing to cool his heels in your reception room for long periods of time, awaiting your willingness and readiness to see him for five minutes. He knows, of course, that in order to impress him with your importance, he will have to sit on his quadriceps in the outer sanctum until you get darn good and ready to admit him to your august presence.

He is a non-poisonous plant. Contact with

\* The Jackson County Medical Society Weekly Bulletin, March 4, 1944.



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him engenders no long and lingering ailment. He may be touched with impunity. (In fact, we have known instances where he was "touched" for several dollars worth of valuable samples, simply for the asking.) He is odorless and tasteless, but is not, as we have amplified, without feeling. He may be, at his worst, the rambler type of plant in that he rambles on past the few minutes allotted to him, but still he cannot be classed with *Rhus Toxicodendron* or the Spiny Cactus.

Often he is addicted to tobacco, but unless you first light a cigarette, usually he will refrain from doing so while in your presence. He knows from long and bitter experience that while he is non-toxic, some Dox can be poisonous as toad stools—especially to "detail men."

So if you see one of these roving, self-abnegative, hard-working, patient and pleasant fellows beginning to take root in your reception room, for Heaven's sake have the girl bring him in before he becomes a permanent potted plant before your very eyes. Because all of you know how much easier it is to dispose of cut flowers, than a pardinieri full of flowering hydrangeas.

But seriously, Fellows, let's give these boys a break. We are busy, of course, but not **too** busy to spare a few minutes of our time when it easily might be of mutual benefit. Ever hear of the Golden Rule? Think it over sometime; it will do you good.

—J. Phil. Edmundson, M.D.

## DELAY IN THE DIAGNOSIS OF CANCER

The hope of making appreciable immediate reductions in cancer mortality lies with the individual physicians. The cancer clinic can reach but relatively few persons. The physician, whether he be general practitioner or specialist, internist or surgeon, must operate his own cancer detection clinic in his office and in his hospital service, before any reduction in cancer mortality is made. This study suggests strongly that such is not being done. The average patient is improving, *e. g.*, reducing the delay, whereas the physician has not made the progress that the public has a right to expect. The means for reducing morbidity and mortality due to cancer are at hand now. They remain to be used.

—Leach, John E., and Robbins, Guy F.: Delay in the Diagnosis of Cancer. J.A.M.A. 135; 5-8. (Sept. 6) 1947.

EDGAR CLOSE, age 76 years, Jerusalem, died March 15th. He had practiced in this community for over 50 years. He was a member of the Conway County Medical Society. Surviving relatives are his wife, three sons and two daughters.

WALTER LEE BOSWELL, age 59 years, of Clarendon, died March 16th. A graduate of Memphis Hospital Medical College in 1913, he had practiced in Clarendon since 1920. He served in World War I, was a charter member of the Clarendon post of the American Legion, a member and past-president of the Lions Club, a member of the Masonic bodies and of the Scottish Rite, a member and past-president of the Monroe County Medical Society, a fellow of the American Medical Association and a steward in the Methodist church. Surviving relatives are his wife and two sons, one of whom, Dr. LeRoy Boswell, is a physician in Memphis.

## WOMAN'S AUXILIARY NEWS

Mrs. Walter G. Eberle and Mrs. Thomas P. Foltz were appointed delegates, and Mrs. J. S. Koenig and Mrs. J. S. Southard, alternates, to the state convention of the Arkansas Medical Society Auxiliary March 9, 1948, at the luncheon meeting of the local Auxiliary.

The appointments were made by the president, Mrs. F. H. Krock, who announced cancellation of the April meeting because of a conflict with the state convention to be held April 15-16 in Little Rock.

The program, arranged by Mrs. S. J. Wolferman, consisted of a piano solo, "Deep Purple," played by Mrs. L. A. Whittaker, and a talk by Mrs. E. C. Moulton on "The Need for Better Care and Better Hospital Facilities for the chronically ill."

Present were Mrs. Krock, Mrs. Stanley Gates, Mrs. I. F. Jones, Mrs. W. L. Shippey, Mrs. B. L. Ware, Mrs. S. J. Wolferman, Mrs. Wright Hawkins, Mrs. A. F. Hoge, Mrs. J. S. Southard, Mrs. S. P. Stubbs, Mrs. Carl Wilson, Mrs. E. A. Mendelsohn, Mrs. Walter G. Eberle, Mrs. L. A. Whittaker, Mrs. John Ben Stewart, Mrs. A. S. Koenig, Mrs. V. N. Kennedy, Mrs. Ben H. Pride, Mrs. John D. Olson and Mrs. W. F. Rose.

Mrs. W. F. Rose, Publicity Chairman, Sebastian County Medical Society Auxiliary.



# 40

YEARS OF PROGRESS  
AND NOW FOR THE NEXT  
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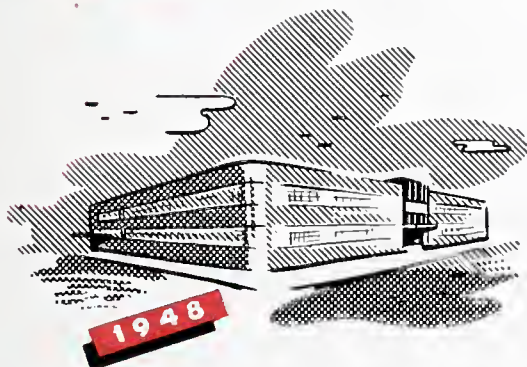
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# TUBERCULOSIS ABSTRACTS

## *A Review for Physicians*

ISSUED MONTHLY BY THE NATIONAL TUBERCULOSIS ASSOCIATION

### CASE FINDING

IT IS well to be reminded how great a contribution tuberculosis-conscious physicians can make to preventive measures against tuberculosis in the discharge of the ordinary duties of a general practice. As it becomes more generally recognized that any patient who consults a physician for any reason may be a case of tuberculosis a long step will have been taken toward the final eradication of the disease.

Modern case-finding is without doubt one of the chief factors in the battle against tuberculosis. It began with emphasis upon contact examinations and extended to mass community-case-finding techniques. Now roentgen technique, particularly as exemplified by the miniature film, is in danger of crowding out other important diagnostic measures, notably tuberculin testing.

Nevertheless there are enormous difficulties in the way of procuring periodic chest films for everybody. Expense is one thing; personnel is another. Cooperation on the part of the public, while less tangible, is not to be ignored. As an experiment, total community surveys have been made and are now being undertaken by the Tuberculosis Division of the United States Public Health Service. Meanwhile it would seem that other efforts, which attempt to focus roentgen case-finding technique, should not be neglected.

Fortunately it has long been recognized that tuberculosis is distributed in more or less well-defined patterns. It is more prevalent among the underprivileged; and therefore, in groups whose housing and nutrition are bad. There is evidence that other not well understood biological factors may also play an important role in morbidity and mortality characteristics. Numerous observations suggest that these factors are extremely subtle in their action. Among these may be mentioned the fact that the Chinese of San Francisco have a death rate from tuberculosis between three and four times that of the white population, while the Japanese of the same city, in the year before World War II, had a death rate less than that of the white population. Among the white population the death rate increases in inverse ratio to economic status. Case-finding studies, therefore, yield rich returns when

directed toward special population groups, with a high incidence of tuberculosis.

Recently it has been recognized that general hospitals and clinics normally operate as concentrating mechanisms for cases of tuberculosis. Less consideration has been given the offices of the general medical practitioners. A pilot study by Dr. Albert C. Daniels, then in private practice in California, suggests that an alert general practitioner can contribute measurably to the solution of the tuberculosis problem in his community. While the figures are small they are nonetheless suggestive. Between October, 1941, and April, 1942, Doctor Daniels routinely fluoroscoped 250 patients. This included all new patients who passed through his office during this period. Films were taken of all patients who showed suspicious findings on fluoroscopy. Seven active cases of pulmonary tuberculosis were discovered in this group of 250 patients, a prevalence of 2.8 per cent. They varied in age from 18 to 57. None gave a history of close contact. Only one suspected that he might have tuberculosis; only one had physical signs suggestive of pulmonary disease.

In the seven previous years of general practice, Daniels had discovered only five active cases of pulmonary tuberculosis. Other physicians of the community, queried by Daniels, had discovered one or two active cases of pulmonary tuberculosis a year. Nevertheless, in this community, statistics suggest that approximately 30 per cent of the general population consult some physician during the year for some complaint.

Daniels assumed at this time that the prevalence of clinically significant tuberculosis in the population at large in his community was one per cent. This would have meant that there were approximately 500 cases existing in the county.



If the prevalence of 2.8 per cent of active cases in his practice was generally applicable to other doctors' offices, then in the 15,000 patients who consulted doctors there should have been about 400 cases of tuberculosis, or about fourth-fifths of the active disease in the community. It is at once suggested that a modern case-finding program carried out by general practitioners by any recognized roentgen technique would go a long way toward the solution of the local tuberculosis problem.

If it is recognized that clinics, general hospitals and doctors' offices represent great natural sieves for the collection of tuberculous individuals, there is present here an extremely economical method of attack.

It would seem that the general practitioners' offices are the great neglected field for case-finding and may prove to be one of the most economical and satisfactory places for further effort. The crux of the matter lies in establishing cooperation between tuberculosis associations, the Public Health Services and organized medicine. This may seem a difficult task, yet its full accomplishment would draw into active cooperation in the antituberculosis movement every general practitioner of medicine in the United States.

A serious weakness in many case-finding techniques has been their inclusion of such a large part of the healthy segment of the population. Preliminary figures derived from 350,000 miniature films taken in California during the past year reveal a prevalence of only half of one per cent or about one-sixth of the Daniels figure. A further weakness is the periodicity of these techniques. Hospitals, clinics and physicians' offices furnish a constantly functioning service that should not be neglected.

Case-Finding, Sidney J. Shipman, M.D., Editorial, The American Review of Tuberculosis, December, 1947.

## THE HONORABLE "PETE" GETS ITCHING FEET

Helena, Feb. 18, 1948.

Dear Editor:

The educational value of "Random Thoughts"

is much appreciated. The December issue carried an account of your vacationing in the Southwest, and you mention a visit to Old Albuquerque. I had never heard of the prefix "Old" in that connection, so I hastened there for observation, feeling that if you had time for a vacation so did I. As usual, I found that you were correct, and I dined therein at an excellent place called "El Placita," and felt amply rewarded for the journey.

Although the mountain peaks were deeply covered with snow, I essayed to duplicate the feat of Dr. Buckalew, who, in the early days of



the late war, was stationed at Salt Lake, and greatly enjoyed the view of the Wasatch mountains. He determined to scale one of the inaccessible peaks, and after ample preparation (as he wrote in the columns of the Journal) he essayed the herculean task of climbing to the top of that peak. After many hours of traversing the difficult terrain, enduring much hardship and effort, he neared the summit, and believed that he had reached a place where never had human-being trod, and that the fruition of his exertions was accomplished. Rounding a great boulder almost at the summit, his enthusiasm collapsed, as he beheld a man milking a cow.

Enclosed is the documentary evidence of my start of the ascent toward the summit of Mount Sandia in the dead of winter. I didn't quite reach the tip of the peak, and neither did I stand on the corner of the four states, but did greatly enjoy the vacation, as did you.

Sincerely,

Peter A. Deisch.



## PERSONALS AND NEWS ITEMS

BORN—Robert Alan Burger, Jr., to Dr. and Mrs. R. A. Burger, Little Rock, on February 15, 1948.

H. F. Thompson has moved from Bearden to El Dorado.

The following attended the New Orleans Graduate Medical Assembly in February: Marlin B. Hoge, J. D. Olson, Art B. Martin, W. L. Shippey, J. B. Stewart, Fort Smith; J. W. Kennedy, Russell Barnett, Arkadelphia, and W. C. Magness, Camden.

F. E. Rushing has moved from Hot Springs National Park to Augusta.

Chas. H. Lutterloh, Hot Springs National Park, directed the Annual Easter Seal Sale of the Arkansas Association for the Crippled.

J. K. Thompson, Fort Smith, addressed the Regional Conference of the American College of Physicians on "Congenital Toxoplasmosis." O. C. Melson, Little Rock, addressed the meeting on "Differential Diagnosis of Upper Abdominal Lesions." A. A. Blair, Fort Smith, presided over one of the sessions. Others in attendance were Euclid M. Smith, Hot Springs National Park; S. C. Fulmer, Little Rock; Fred Harris, Little Rock, and L. D. Massey, Osceola.

John H. Wilson has been elected a director of the Magnolia Chamber of Commerce.

Hoyt R. Allen attended the recent meeting of the Mid-West Proctologic Society in Omaha.

D. W. Goldstein, Fort Smith, and Dorothy Goetze, Hot Springs, attended a joint meeting of the St. Louis and the Kansas City Dermatological Societies in St. Louis March 17th.

John T. Crone, Jr., is now associated with Hoyt R. Allen in the practice of proctology at 826 Donaghey Building, Little Rock.

C. C. Long has been elected a director of the Ozark Consolidated School District.

The following attended the Dallas Southern Clinical Society meeting: W. F. Adams, Fort Smith; Jack Ellis, Hot Springs National Park; W. M. Woods, Huntington; R. T. Smith, Little Rock; F. H. Krock, Fort Smith; J. A. Henry,

Russellville; I. G. Jones, DeQueen; T. H. Jones, Waldo; G. F. McLeod, Magnolia; W. M. Parker, DeValls Bluff; M. V. Russell, J. B. Wharton, Jr., and J. M. Shepherd, El Dorado, and M. D. McLain, Little Rock.

## VIEWS OF ARKANSAS SENATORS AND REPRESENTATIVES ON SOCIALIZED MEDICINE

(Editorial Note: Individual physicians and officers of the Arkansas Medical Society have had occasion in the past to write our national legislators on the subject of political or socialized medicine. The circulation of their replies has been limited among our membership. President Truman's latest message advocating enactment of national health insurance prompted Dr. J. D. Riley, State Sanatorium, to write each of our representatives in Congress. Permission has been received for publication of the replies received by Dr. Riley and they are printed in The Journal for the information of the entire membership of the Society.

### YOU ARE URGED TO READ THESE REPLIES)

I am very glad to have your letter of January 16 in regard to the enactment of a compulsory health insurance law.

I do not know exactly what the President had reference to in his message to Congress in regard to health insurance. However, I assure you that I am in opposition to socialized medicine and I have no desire whatever to promote the regimentation of the medical profession or its control by the Federal Government. I believe that if the private companies and the doctors can develop an efficient system of insurance of medical services, as they seem to be doing, there will be no legislation such as you fear.

Perhaps you will recall that I opposed the Wagner-Murray, Dingell Bill in the last session of Congress. Nothing has occurred since that time to change my opinion.

With kind regards, I am

Sincerely yours,

J. W. Fulbright.

This acknowledges your letter of January 15.

I have repeatedly advised members of the medical profession that I am opposed to socialized medicine, and I think I can assure you now that I will not vote for any compulsory health insurance bill.

With kindest regards, I am

Sincerely yours,

John L. McClellan.

This will acknowledge receipt of and thank you for your letter of the 2nd instant with reference



to the proposal for compulsory health insurance.

I have always been opposed to this type of legislation. It is but another example of bureaucratic interference with what, in my judgment, should be a strictly personal matter. Everyone, of course, is interested in maintaining the health of our people, but as I see it such a program is not properly a Governmental function.

With best wishes, and thanking you for your expression of interest in and views concerning the proposal, I am

Yours very sincerely,  
Fadjo Cravens.

Your letter in opposition to the President's proposal for the enactment of compulsory health insurance, is appreciated. It was good of you to write me and give me the benefit of your convictions on this vital subject.

For many years I have bitterly opposed the various socialized medicine proposals which have been presented to Congress. I assure you that I will continue to fight any and all such schemes or concoctions by whatever name or guise it may be presented.

The doctor-patient relationship as has always existed in America has been, and is, most satisfactory. The effort to change this system comes from left-wing radical elements who are fostering proposals which are foreign to principles upon which our nation was founded and has grown to be the mightiest on the face of the globe.

With personal regards and best wishes, I am

Sincerely yours,  
E. C. Gathings.

This will acknowledge your letter in reference to the President's recommendation of the enactment of the public health insurance law.

I appreciate having your expression and the position of the doctors of our state. I have discussed this with a great many of our mutual friends of the medical profession and heartily concur in your position.

With kind regards,

Sincerely yours,  
Oren Harris, M.C.

I wish to thank you for your message in regard to proposals for compulsory health insurance program. I doubt that any measure of this type will receive consideration during the present session and I will have an opportunity to discuss this and other measures with you when I am at home during the next recess. While I anticipate that nothing will be done in this field during a presidential election year I think it is generally

agreed that Congress will in time pass some health legislation but it will require a lot of study and delicate treatment of many issues. I am anxious to have the views of the medical profession in my district and I want to hear from you whenever you have something that should require my attention.

With regards, I am

Sincerely yours,  
Brooks Hays.

It is always a pleasure to receive a letter from you advising me of your views on subjects coming before the Congress. In this instance we are, therefore, most pleased to have your letter of January 15 advising us of your position with regard to that portion of President Truman's recent message to the Congress urging the enactment of compulsory health insurance.

It is the general opinion here that no such proposal will be considered by this Congress at any time this year. The general feeling still prevails that the President's proposal is in the direction of socialized medicine even though he contends that it is not. A great majority of the Congress is opposed to socialization of the medical profession. In the past our Committee on Ways and Means has always refused to consider the matter.

With kind personal regards and best wishes, I am

Sincerely yours,  
Wilbur D. Mills.

Thank you for your letter of January 15 advising that you know the physicians and people of Arkansas are opposed to legislation proposed by the President for a compulsory health insurance law.

You may be sure that I shall never support legislation for the socialization of medicine.

With kindest regards,

Sincerely yours,  
W. F. Norrell.

Thank you so much for your letter of January 15.

I can well understand your attitude on the compulsory health insurance law and, like you, I will not support it unless it is left entirely with the local government. I don't want any more federal bureaus if we can possibly manage to get along without it.

I appreciate hearing from you on this matter. With every good wish.

Sincerely yours,  
J. W. Trimble.



## AMERICAN MEDICAL ASSOCIATION SAYS PUBLIC DEMAND FOR SERVICE AT NIGHT MUST BE MET

The American Medical Association calls on county medical societies to meet the public demand for emergency medical service at night.

"From many sections of the United States," says an editorial in a recent (March 6) issue of *The Journal of The American Medical Association*, "complaints have come lately that persons who have called physicians late at night have been unable to secure attendance from either those whom they considered their family physicians or from specialists or, indeed, from any physician."

The American Medical Association says that large county medical societies or urban groups should maintain a physicians' telephone exchange which would take the responsibility for locating physicians if response is not made to the ringing of the telephone in the home or in the office.

The solution is simple and practical, requiring only a minimum of community organization. A number of county medical societies already maintain a physicians' telephone exchange where doctors' calls may be received and doctors located if their office or home telephones do not respond. Such an exchange can be utilized as at night or on holidays, simply by furnishing the exchange with a list of physicians who are able and willing to make night calls. Such physicians would probably include the younger general practitioners, newcomers to the community, and others in general practice. If such a roster were available, and its availability widely publicized, night calls for medical service would soon gravitate to this center and the patient would be assured the services of a physician.

Under such a system the necessity for calling many doctors would be eliminated. Two calls at most would be necessary. Where there is no physicians' telephone service, it might be possible to have the hospitals cooperate by handling such night calls.

The Medical Society of the District of Columbia and the Milwaukee County Medical Society have found such a plan practical, as have a number of other societies.

By this simple and practical expedient, which is doubtless in effect in modified form in a number of communities, the sick can be served and the medical profession can redeem its pledge of unselfish public service.

It is highly important that where such arrangements exist they be brought to the attention of the lay people in the community through appropriate public channels, not once but repeatedly, to keep the shifting populations well informed.

Few problems in the field of medical service have aroused so much public discussion. Whether resentment against physicians is justified or not, it does harm. The solution for this problem is so eminently simple and would reflect so favorably upon physician-patient relationships that medical societies everywhere are urged to give it serious consideration immediately.

## BOOK REVIEW

**Advances in Military Medicine**—The Committee for Medical Research. Two volumes. Price \$12.50. Boston: Little, Brown and Company.

This is a two-volume report on how one of Roosevelt's sub-committees spent \$25,000,000. It covers the medical research conducted by the Sub-Committee on Medical Research from the Office of Scientific Research and Development. A thorough perusal will bring the reader up to date on the research problems which were undertaken. The military forces benefited materially from this research and the civilian practice of medicine was likewise benefited. Some of the projects are finished. Many more had the intelligent groundwork laid for future investigations that will lead to even greater benefits for the peoples of the world. One cannot but be impressed with the thought that the success of this mass research will be used as an argument for government-controlled scientific research in all fields of investigation. If the thought is lost that it was made possible by the national emergency, to the neglect of investigation in other lines of endeavor, by the work of investigators from all the allied sciences, then this conclusion might seem logical.





# The JOURNAL OF THE ARKANSAS MEDICAL SOCIETY

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## The advice is always "SEE YOUR DOCTOR"

To an audience of over 23 million people, in LIFE and other national magazines, Parke, Davis & Co. presents the message shown below. This is the 211th advertisement in the campaign in behalf of the medical profession, published continuously since 1928.

*A reproduction in full color will be sent on request.  
Write Parke, Davis & Company, Detroit 32, Mich.*

### Some things you should know about reducing your weight

*No. 211 in a series of messages from Parke, Davis & Co.  
on the importance of prompt and proper medical care.*

**I**t is an accepted medical fact that excess weight can impair your health and efficiency, and possibly shorten your life.

One person's proper weight may be quite different from another's, however—even though their height and age are approximately the same. A large-boned, muscular person, for instance, should weigh considerably more than a small boned person of the same height and age.

How much you should weigh is something to leave up to your doctor. Only your doctor can accurately judge whether your weight is within normal limits, or whether a loss or gain in weight is medically advisable.

*If your doctor tells you that you weigh more than you should, it's just good sense to do something about it under his supervision. To undertake a weight-reducing program without proper medical guidance is a foolish, and often dangerous, thing to do.*

It would be pleasant if there were some simple pill which would automatically and safely reduce your weight with no effort on your part. Unfortunately, *no such remedy exists.* So-called "reducing pills," taken without a physician's advice, are usually valueless and may be dangerous.

One type of pill, for instance, will cause you to lose weight—but only for a day or two! Its action is to remove water from body tissues, thus lowering your weight. But as soon as the water is replaced, the extra pounds are back again.

Another thing to beware of, in an effort to lose weight, is any sort of faddist diet.

*A liquid diet may often be just as fattening as a normal one. A diet which concentrates on a particular food, and excludes most other foods, may deprive you of nutritive elements essential to the maintenance of good health.*



**SEE YOUR DOCTOR.** Let him decide whether you should lose weight, how much you should lose, and how quickly. Let him tell you how you can do it without starving yourself, without risking your health. He can recommend a

well-balanced diet. He can advise you about exercise. If he thinks medication will be helpful in your case, follow his instructions about dosage *exactly.* His advice is the only advice you can trust in matters that concern your health.

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# The JOURNAL

## OF THE ARKANSAS MEDICAL SOCIETY

PUBLISHED MONTHLY UNDER DIRECTION OF THE COUNCIL

Vol. XLIV

FORT SMITH, ARKANSAS, MAY, 1948

No. 12

### THE EVOLUTION OF VITAMIN M (FOLIC ACID)\*

PAUL L. DAY

Department of Biochemistry, School of Medicine,  
University of Arkansas, Little Rock

Your program chairman asked me to outline some of the important events leading to the discovery of this most recent addition to the list of vitamins, and to give briefly some of the experimental background for its clinical use. I imagine two reasons prompted this invitation. In the first place, the discovery of what is now commonly referred to as folic acid constitutes a most fascinating story and represents one of the important medical discoveries of modern times. In the second place, some of the earliest work and much of the later work on this vitamin was done in the laboratories of the School of Medicine of the University of Arkansas; between 1935 and the present time more than 20 papers have been published from this institution on various phases of the problem. The Arkansas group which has contributed to the collaborative studies has included William C. Langston, William J. Darby, Carroll F. Shukers, John R. Totter, Joel G. Wahlin, Virginia Mims, and others. When the term "we" is used subsequently, it should be taken to mean two or more of this group.

In retrospect we must now credit the first experimental production of vitamin M deficiency in an animal to the work of McCarrison in India in 1919 (1). He placed monkeys on a poor rice diet and they died with the clinical manifestations of dysentery. He had no facilities for making stool culture or blood counts. He mistakenly attributed the syndrome to a deficiency of vitamin B.

McCarrison's experimental findings were re-discovered in the early 1930's independently by

Wills and associates (2) in India, and by the Arkansas investigators (3). Since their and our findings were in essential agreement I shall limit my remarks to a presentation of some of our own data.

Our experiments in Little Rock arose from the discovery that keratitis and cataract could be produced experimentally in rats by a deficient diet. Subsequently those lesions were found to be prevented by riboflavin (4). In an attempt to produce similar pathology in a primate, we designed a diet for the rhesus monkey patterned after the one given to rats. However, our ex-



Fig. 1. Photograph of a monkey suffering from pteroyl-glutamic acid (vitamin M) deficiency, showing extensive necrosis of the lip (noma).

perimental findings were quite different. Our monkeys developed severe diarrhea and stool cultures demonstrated the presence of organisms of the genus *Shigella*. Most of the animals developed lesions of the gums or lips. Figure 1 illustrates an animal with extensive necrosis of the lip. Smears from such lesions contained spiral organisms and fusiform bacilli. Blood counts

\* Read before the 71st Annual Session, Arkansas Medical Society, Little Rock, April 18, 1947. The work from the author's laboratory referred to in this paper was supported by grant-in-aid from the Nutrition Foundation, Inc.



showed a marked anemia, leucopenia, and thrombocytopenia. Figure 2 is typical of many experiments. The peripheral blood changes involved all cell types: RBC, WBC including both granulocytes and lymphocytes, and hemoglobin. Plate-

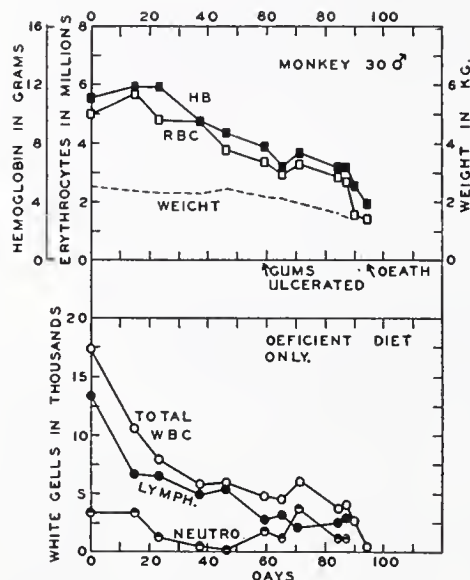


Fig. 2. Hematological data on a monkey subjected to a diet deficient in pteroylglutamic acid (vitamin M, folic acid). (Courtesy of the Editors of the Journal of Experimental Medicine) (6).

lets are not shown in this figure but they were similarly reduced.

It was found that this syndrome could be prevented by either yeast or crude liver extract. In 1935 we reported our early findings, attributing the blood dyscrasia to a vitamin deficiency (3). By 1938 it was believed that we were dealing with the deficiency of a hitherto unrecognized vitamin, and the term vitamin M was proposed (5, 6). Figure 3 shows a response to the feeding of a crude liver extract to a cytopenic monkey. Note the level of RBC at time of treatment, 900,000; hemoglobin, about 2 grams per 100 ml.; repeated WBC counts below 5,000 per c.mm. Five grams of Lilly's oral liver extract daily resulted in a dramatic reticulocyte response to 28 per cent followed by return of all blood cell types to normal. The following vitamins, in crystalline form, were subsequently found ineffective: riboflavin, thiamine, ascorbic acid, nicotinic acid, calcium pantothenate, inositol, PABA, pyridoxine, and choline. Thus, by 1940 it became clearly evident that we were dealing with a new nutritional essential (7). The findings of the Arkansas group were amply confirmed in several laboratories (8).

The effectiveness of the butterfly wing pigment xanthopterin in the treatment of goat's milk anemia in rats (Tschesche and Wolf, 9) and in

curing an anemia in salmon (Simmons and Norris, 10) led us to investigate its use in vitamin M deficiency in the monkey. Dr. Totter synthesized a quantity of the yellow substance, and it was employed in several experiments upon cytopenic monkeys (11). Unquestioned reticulocyte responses were elicited by the feeding of the synthetic xanthopterin, but the substance did not permanently protect the animals. The summary of our report in 1944 contained this statement:

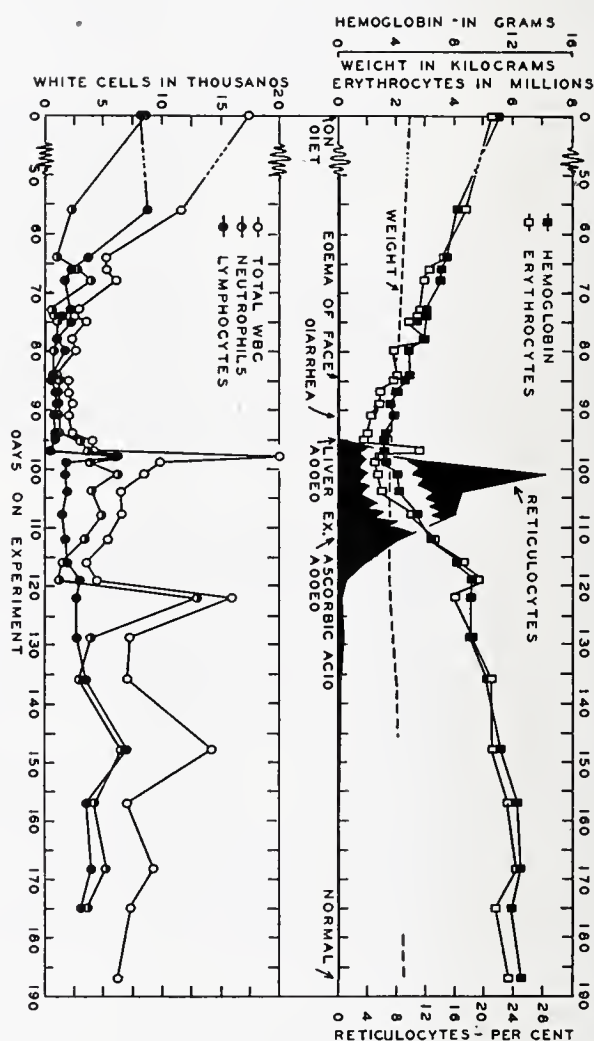


Fig. 3. Hematological data showing the dramatic response of a deficient monkey to crude (oral) liver extract. (Courtesy of the Editors of the Journal of Experimental Medicine) (7).

"The results suggest that xanthopterin or some closely allied substance may be required by the monkey for normal hemocytopoiesis" (11).

In the meantime, investigators in other laboratories, using other species, had been making discoveries which eventually aided in the solution of the problem. The names which have been applied to this factor, with the dates, the species used, and the investigators, are given in Table I. Stokstad and Manning (12) (Western Condensing Co.) found that the chick required an unknown



substance for growth and called it factor U. Snell and Peterson (13) (University of Wisconsin) were investigating growth factors for bacteria and found that an essential nutrient for *Lactobacillus casei* could be adsorbed on norite (charcoal) and eluted with certain solvents. They applied the term "norite eluate factor" to this bacterial growth essential. Hogan and Parrott (14) (University of Missouri) subjected chicks to a deficient diet and discovered that their birds developed an anemia; they applied the term vitamin B<sub>c</sub> to the unknown vitamin (c for chick). Mitchell, Snell, and Williams (15) (University of Texas) used another bacterium (*Streptococcus faecalis*) and referred to their growth factor as "folic acid" (from "folium"—leaf). Stokstad and associates (16), who isolated the factor in crystalline form, applied the term "*Lactobacillus casei* factor." Almost simultaneously, Pfiffner and associate (17) at Parke, Davis and Company Laboratories announced the isolation of a crystalline material which they called "vitamin B<sub>c</sub>."

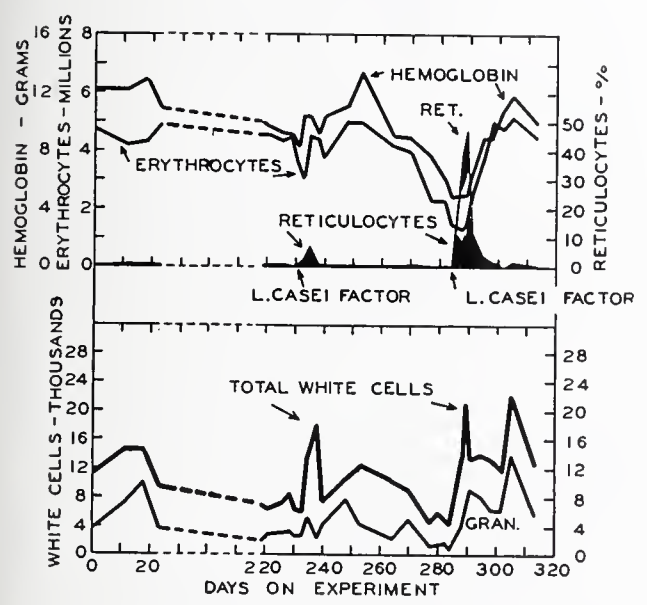


Fig. 4. Typical responses of the cytopenic monkey to natural *Lactobacillus casei* factor (fermentation factor, pteroyltriglutamic acid). In each of the two experiments on this monkey the total dose of vitamin was approximately 3 mg., given intramuscularly. (Courtesy of the Editors of the Journal of Biological Chemistry) (18).

In 1944 Stokstad and associates made available to us about 20 mg. of one of their crystalline preparations of *L. casei* factor (the fermentation factor), which we used in experiments on several monkeys (18). Typical responses are shown in Figure 4. In each experiment this animal received a total of 3 mg. of pure *L. casei* factor intramuscularly over a 4-day period. In the second experiment the reticulocyte crisis of 49 per cent appeared on the fifth day. The

clinical improvement was as dramatic as was the reticulocyte response; monkey No. 145, for example, was extremely ill at the time treatment was started. In addition to the anemia and leucopenia he showed loss of appetite, mild necrosis of the gums, and bloody diarrhea. The treatment was followed by prompt return of the appetite to normal; the gum necrosis cleared, and the stools became normal. Similar responses were obtained in other monkeys. The reticulocyte responses are plotted in Figure 5 against initial RBC, shown as filled circles. The highest dot represents a 49 per cent reticulocyte response to the initial RBC of 1.5 million per c.mm. We had no basis for predicting what a maximum reticulocyte response should be in a cytopenic monkey, so we plotted on this chart the expected response of pernicious anemia patients to adequate therapy (intramuscular liver), by the solid line (19). As you will see, all the responses to *L. casei* factor were greater than the expected maximum response of a pernicious anemia patient. There could be no doubt that we were dealing with the real thing.

The brilliant work on the isolation, identification, and synthesis of the factor was reported last year by Angier and his numerous associates (20, 21) of the American Cyanamid Company. Their results show what can be done in a short time when enough money, manpower, and brains

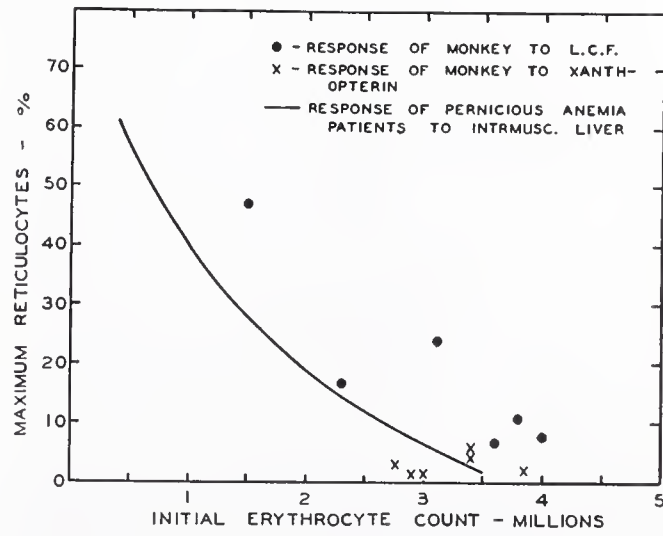


Fig. 5. Maximum reticulocyte responses (in per cent of total erythrocytes) plotted against initial erythrocyte counts (in millions per c.mm.). The filled circles represent responses of cytopenic monkeys to injected *Lactobacillus casei* factor. X represents the response to the feeding of xanthopterin to cytopenic monkeys (11). The solid line is plotted from the data of Isaacs and Friedman (19) for the maximum reticulocyte percentage after intramuscular liver therapy in pernicious anemia. (Courtesy of the Editors of the Journal of Biological Chemistry) (18).



are put into a problem. Their published formula (21) for the factor, chemically called pteroylglutamic acid, is given in Figure 6. From our earlier experiments on the use of xanthopterin in the monkey we expected to find that butterfly wing pigment as a chemical part of the pure vitamin, and it is there. The substance also

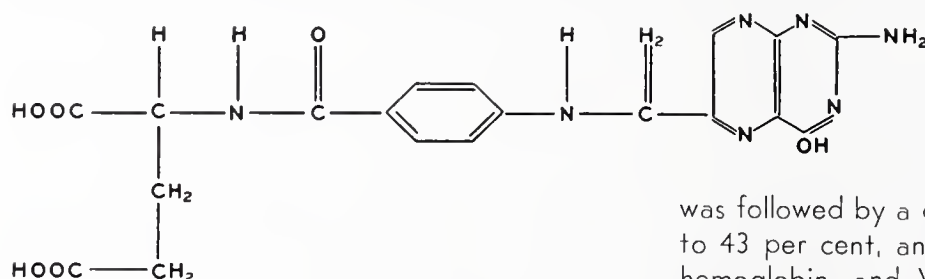


Fig. 6. Structural formula assigned by Angier et al. (21) to pteroylglutamic acid (vitamin M, folic acid).

contains PABA and the dicarboxylic amino acid, glutamic acid. This is the synthetic vitamin, available for therapeutic use as "folvite," and is chemically identical with the one isolated from liver. Table II represents in shorthand form the structure of this substance and two more complex substances of the vitamin group which have been isolated in pure form. In this representation, P stands for the pteroyl group (pteridine plus PABA), while GA stands for glutamic acid. The synthetic factor contains one GA. The one which was earlier isolated from a fermentation residue (16) contains three GA. The one isolated from yeast by the Parke, Davis group (22) and called vitamin B<sub>12</sub> conjugate, contains seven GA. All three of these compounds are utilized by experimental animals, and presumably are utilized by normal man. We do not yet know which of the three is the compound used by tissues.

The factor now known chemically to be pteroylglutamic acid (which we commonly abbreviate as PGA) is therefore equivalent to the factor historically called vitamin M, factor U, vitamin B<sub>12</sub>, norite eluate factor, folic acid, and *Lactobacillus caesi* factor.

The successful use of the natural *L. casei* factor and synthetic pteroylglutamic acid in experimental anemias prompted its use in certain clinical entities as soon as the substance became available in sufficient quantity. Time does not permit me to present exhaustively the use of PGA in human macrocytic anemias, and that is not essential since reviews are available (23, 24). But I do wish to show some typical cases. Figure 7 presents the data on one of the cases of sprue of Darby, Jones, and Johnson at Vanderbilt Hospital (25). At the time treatment was instituted

this patient had a severe anemia, mild leucopenia, and a thrombocytopenia. The diarrhea and other clinical signs of sprue were all present. The blood picture showed: hemoglobin, 7 grams; RBC, 1.5 millions; WBC, 4,000. Treatment with PGA is indicated by the vertical bars, each bar representing 15 mg. intramuscularly. The treatment

was followed by a dramatic reticulocyte response to 43 per cent, and gradual return of the RBC, hemoglobin, and WBC to normal. The reticulocyte maximum was reached in 5 days. These curves could be superimposed almost exactly on the curves for the monkey response, which was shown in Figure 4. This patient also exhibited an improvement in vitamin A tolerance upon treatment, indicating that gastro-intestinal function had returned toward normal. Dr. Darby has expressed the opinion that sprue is the human counterpart of vitamin M deficiency in the monkey.

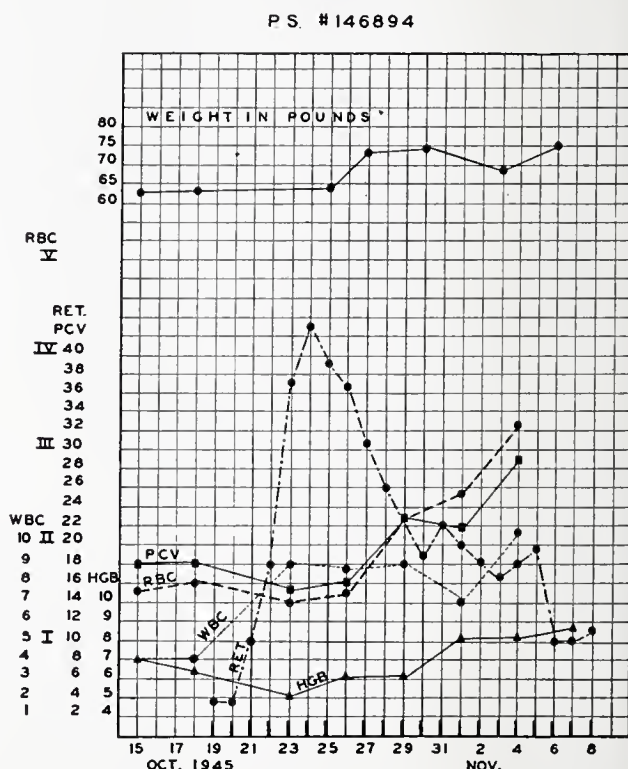


Fig. 7. Hematologic responses to the administration of pteroylglutamic acid in a case of sprue. Each upright bar represents the intramuscular injection of 15 mg. of pteroylglutamic acid. Weight changes are shown at top. (Courtesy of Dr. William J. Darby and the Journal of the American Medical Association) (25).

One of the cases of pernicious anemia treated at University Hospital by Dr. Carroll F. Shukers



and Dr. W. M. Hamilton exhibited the following peripheral blood picture prior to treatment: hemoglobin, 5.2 grams; RBC, 1.4 millions. The administration of PGA intramuscularly was followed by a reticulocyte crisis of 31 per cent of circulating erythrocytes. The hemoglobin and RBC returned to normal levels under treatment. Another pernicious anemia patient of Shukers and Hamilton has been maintained in remission for 394 days on daily doses of from 2.5 to 5 mg. of PGA. One cannot positively rule out the possibility of a spontaneous remission, but from the history of this patient it appears unlikely.

Time does not permit a discussion of the relative effectiveness of PGA and liver extract in pernicious anemia, nor speculation on the metabolic functions of these two materials. Mention should be made, however, of the paradoxical situation with regard to these two therapeutic agents in the treatment of pernicious anemia. Either of the two will produce a good hematological response in this disease, and yet chemically the two are quite unlike. Injectable liver extract preparations contain essentially no PGA; synthetic PGA of course does not contain any of the active principle of the injectable liver extract. And, although injectable liver preparations are fully as effective as PGA in producing a hematological response in pernicious anemia—some believe more effective—these highly purified liver preparatins are **not** effective in the deficient monkey nor in the anemic chick. When

we know the answer to this riddle we shall understand much more about the metabolic defect involved in pernicious anemia, and we shall also have learned something of the fundamental chemical reactions involved in normal blood cell formation.

TABLE I

Chronological record of the various names applied to the factor now chemically known as pteroylglutamic acid.

Year	Name proposed	Species used	Investigators
1935, 1938	vitamin M	monkey	Arkansas group (3, 5, 6)
1938	factor U	chick	Stokstad and Manning (12)
1939, 1940	norite eluate factor	L. casei	Snell and Peterson (13)
1939, 1940	vitamin B <sub>12</sub>	chick	Hogan and Parrott (14)
1941, 1944	folic acid	S. faecalis	Mitchell, Snell, and Williams (15)
1943, 1944	Lactobacillus casei factor	L. casei	Stokstad et al. (16)
1946	pteroylglutamic acid	L. casei	Angier et al. (21)

TABLE II

Abbreviated representation of the structures of three chemically known substances of the vitamin group, together with the various names applied to them.

Abbreviated representation	Names
PGA	Pteroylglutamic acid, vitamin B <sub>12</sub> , liver L. casei factor, synthetic L. casei factor
PGA-GA-GA	Pteroyltriglutamic acid, fermentation L. casei factor, teropterin
PGA-GA-GA-GA-GA-GA-GA	Pteroylheptaglutamic acid, vitamin B <sub>12</sub> conjugate

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## HISTORY OF THE PIONEER DOCTORS OF PULASKI COUNTY\*

Compiled by Mrs. J. P. Runyan, Little Rock

Dr. Matthew Cunningham, the first physician, came to Little Rock February, 1820, died June 15, 1854. He was born in Philadelphia in 1784. Graduated in medicine at the University of Pennsylvania in 1808. Was a surgeon of the army of the War of 1812. Dr. Cunningham served as mayor of Little Rock under the incorporation of 1832, and was very active until his death. He married Mrs. Eliza Bertrand of New York, who was the first white woman to become a resident of Little Rock.

Dr. Palmer, a finely educated and accomplished physician, was Dr. Cunningham's assistant during early days.

Dr. Robert A. Watkins, born in Kentucky, was also one of the early physicians of Little Rock. He came to Little Rock in about 1822. He was a son of Maj. Isaac Watkins, an early settler of Little Rock. Dr. Watkins was elected secretary of the State of Arkansas in 1836.

Dr. James Nimrod Menefee, known as the great "dueling surgeon" of early days (1826). Dr. Menefee married Harriet Lewis, daughter of Gen. William Lewis, on December 28, 1824. Dr. Menefee died in Conway County about 1831.

Dr. E. Swanson came to Little Rock in 1829. No other information has been secured about Dr. Swanson.

Dr. John T. Fulton, a brother of Gov. Wm. S. Fulton, the last Territorial governor, came to Little Rock in about 1829. Dr. Fulton was postmaster in 1830. In the fall of 1836, he became captain of the 1st Company of Artillery, commonly known as Pike's Artillery, etc. Graduated from New York City Medical College. Dr. Fulton married Caroline Scull, daughter of Hewes Scull of Little Rock. Dr. Fulton is buried in Pine Bluff, Arkansas.

Dr. John H. Cocke came to Little Rock in 1830. Date of graduation not known. Dr. Cocke was very active in political affairs, and was a member of the first state legislature. Was county judge from 1832 to 1834. Died October, 1837.

Dr. Johnathan Isom, whose name appears in Arkansas history, was an early physician. He evidently died in some other state, since there is no record of his death.

Dr. Bushwood W. Lee lived in Little Rock in 1830, and was connected with many political affairs, besides his profession. Later moved to Arkansas County to that part which is now Lincoln, where he died.

Dr. John R. Conway, a brother of James S. Conway, the first governor of the State of Arkansas, was a native of Tennessee. Came to Little Rock in 1830. Dr. Conway was a surveyor, but devoted most of his time to the practice of medicine. Died in San Francisco, California, in 1868.

Dr. Alden Sprague was born in Bedford, N. H., in 1800; came to Little Rock in 1831. Graduated from the Medical Department of Dartmouth College. In 1837 he published a series of articles "On the Diseases of Arkansas," first published in the Gazette of June 27, 1832. In 1835 he was one of the commissioners to prepare a petition to the legislature asking for the incorporation of Little Rock as a city. Dr. Sprague died in Little Rock, April 26, 1847.

Dr. Lorenzo Gibson, father of our well known Lorenzo P. Gibson, came to Little Rock from Tennessee in 1833, and was a leading physician for many years. Also was very active in political affairs. He was a member of the legislature in 1838 and 1840. Died September 28, 1866.

Dr. P. O. Hooper, born in Little Rock in 1833; died July 29, 1902. Graduated from Jefferson Medical College in 1856. Dr. Hooper was one of the physicians who organized the Medical Department of the Arkansas University, and was dean for some time. Great credit is due Dr. Hooper for the establishment of the State Insane Asylum. He was president of the Little Rock and Pulaski County Medical Society in 1870. He was married in Arkansas to Miss Eliza Carroll of Alabama in 1859.

Dr. A. W. Webb wrote an interesting book embracing the treatment of practically all diseases that he met during his practice in Chicot County in about 1834. After practicing there for several years he removed to Little Rock and was mysteriously murdered at night along with his son at their home on Third and Scott streets, September, 1866.

Dr. W. W. Adams, born in Massachusetts in

\* Presented by the Biography Committee, Woman's Auxiliary to the Arkansas Medical Society, Mrs. C. W. Dixon, Gould, and Mrs. C. W. Garrison, Little Rock.



until his death. Dr. McAlmont married Sarah Helen Cheever in Little Rock, June, 1855.

Dr. George D. Sizer was a partner of Dr. Corrydon McAlmont; was a member of the first Medical Society of Little Rock. He was widely known and loved by all who knew him. Dr. Sizer died May 5, 1863. (No other information).

Dr. R. Van Patten, born in Schenectady, N. Y., 1827; graduated from the Medical University of Iowa in 1853; came to Little Rock during the close of the Civil War. He was secretary to the Board of Health and was physician and surgeon for the state penitentiary at one time. He was also acting surgeon for the U.S.A. in Little Rock for a short time. Married Miss Miller of Batesville, Arkansas.

Dr. William Armour Cantrell, born in Nashville, Tennessee, January 23, 1826; died December 28, 1903; graduated from the University of Louisville, Ky., Medical College, March 6, 1847. He first practiced medicine in Jefferson County, Arkansas, but later moved to Little Rock in 1852. Dr. Cantrell was post surgeon for the federal government at Little Rock garrison. Was a member of the Public Health Association. In February, 1852, Dr. Cantrell married Miss Ellen M. Harrell.

Dr. Lorenzo P. Gibson, born in Little Rock, August 18, 1855; died December 29, 1919; graduated at Jefferson Medical College in Philadelphia, Pa., in 1877. Dr. Gibson was a member of the faculty of the University of Arkansas Medical College. He was editor of the first monthly "Journal" in 1890 to 1897. He was very prominent and active in the medical profession. In April, 1883, he married Miss Mary Jordan.

Dr. Charles Minor Taylor, born in Clark County, Kentucky, November 27, 1834; died April 15, 1905; graduated from Louisiana Medical College; came to Arkansas in 1855 to accept his appointment by President James Buchanan of the United States as surgeon of the Government Marine Hospital at Napoleon, Ark., where he served until the Civil War. He became a surgeon in Confederate ranks and was later assigned to duty as post surgeon at Little Rock. After the war he lived in Little Rock, where he resumed his practice. Dr. Taylor was married twice—first to Mrs. Irene (Jordan) Johnson; second to Julia Prewitt, January 1895.

Dr. John Kirkwood came to Little Rock in February, 1859, and remained until his death,

1875. He was born January 18, 1811, in Pennsylvania. Married Lydia Farree in 1836.

Dr. John B. Bond, born March 22, 1836, at Gettysburg, Pa.; died July, 1915; came to Little Rock with Price's army in 1861. Dr. Bond was first a practicing physician after the war closed, but later became a druggist. In July, 1863, he married Miss Julia Sterling of Little Rock.

Dr. J. W. Quinn, born in Nashville, Tenn., December 20, 1828; died February 1, 1910; came to Little Rock in 1864 as chief surgeon of the Refugee's and Freedman's Hospital. Graduated from Nashville, Tennessee, College of Medicine in 1855. Married Miss Sue F. Johnson of Nashville, Tenn., March 7, 1850.

Dr. Augustus L. Breysacher, born February 2, 1831; died March 21, 1897; graduated from Missouri Medical College, St. Louis, in 1859; came to Little Rock after the close of the Civil War and began the practice of his profession in 1870. He was one of the founders of the Medical Department of the University of Arkansas. Dr. Breysacher was married to Miss Carrie Pynchon of Huntsville, Ala.

Dr. Miles K. Stark died April 7, 1873, in his 47th year. He was a native of Greenville County, Va.; graduated from the University of Pennsylvania, 1848; came to Little Rock in 1867. At one time he was physician for the Deaf Mute Institute.

Dr. William Thompson, born in Bedford County, Va., 1830; died October 26, 1909; graduated from the Medical Department of the University of Nashville, Tennessee, 1856; came to Little Rock about 1856, and settled 10 miles south of Little Rock; returned to Little Rock, 1867. He served as surgeon in the Civil War. His wife was Sallie Dortch of Tennessee.

Dr. David H. Dungan, born in Maury County, Tenn., March 11, 1839; died April 17, 1875; came to Little Rock in November, 1870, where he practiced medicine until his death. Dr. Dungan was very prominent in military affairs during the Civil War. He was a member of the Little Rock and Pulaski County Medical Society of which he was president. He was president of the State Board of Health at one time. Time and place of graduation not known.

Dr. Craven Peyton, born March 30, 1823, in Shelbyville, Ky.; died November 7, 1872; graduated from the University of Kentucky in 1846. He was a surgeon on the staff of Colonel Yell's regiment in Mexican War, and on the Con-



1808; died December 25, 1883. Graduated from Amhurst College in 1832. Came to Little Rock in 1835 and began to practice medicine. He was one of the most useful and valuable citizens. Married Elvira Cummins.

Dr. William C. Howell was one of the early physicians of Pulaski County and Little Rock. He was also a druggist of 1837, known as Howell and Dunn. Dr. Howell died in 1836 (was killed). Married Elizabeth Blake Smith of Albany, New York, October 6, 1835.

Dr. George W. Sutton, born in Sampson County, N. C., in 1837. Was a self-made man. First commenced the practice in Arkansas when there were few physicians in this section of the country. He became a leading physician of Pulaski County; served in the Confederate Army during the Civil War.

Dr. Solon Bourland was born at Suffolk, Va., in 1808; came to Little Rock in 1843. Dr. Bourland served as U.S. senator from March 30, 1848, until April 18, 1853. Resumed the practice of medicine in Little Rock until 1861. Entered the Civil War and became a colonel in the Confederate service. Died in Houston, Texas, January 1, 1864. Dr. Bourland was thrice married. First in 1850 to Miss Huldah Wright of Suffolk, Va. His second wife was Miss Hunt of Tennessee, who lived only a few months. His third wife was Miss Mary Melbourne of Little Rock.

Dr. Edward Cross was born in Little Rock November 4, 1837; died December 10, 1918, in Kingsville, Texas. He graduated from Jefferson Medical College in Philadelphia at the age of 32. He served in the Confederate Army during the Civil War as surgeon. Dr. Cross was a member of the faculty of the University of Arkansas (the Medical Department) at one time. Dr. Cross established the first hospital in the state for the treatment of diseases of women.

Dr. P. P. Burton, born in Amhurst, Va., October, 1796; died September 19, 1875; graduated from Philadelphia Medical College; came to Little Rock in 1840, and practiced medicine until his death.

Dr. Roderich L. Dodge, born in Hartford, Vt., September 17, 1808; died in Little Rock, 1893; graduated from Dartmouth College in 1834; came to Little Rock in 1842 to practice his profession. Dr. Dodge was elected mayor of Little Rock, January 4, 1847. Married Emmeline Bradshaw, a native of New England. Sometime after

his first wife's death he married Eliza Bradshaw.

Dr. S. D. Dodge, born at Dwights Mission, Cherokee Nation; died January 11, 1906, at the age of 65. He was a son of well known Roderick L. Dodge. He came to Little Rock with his parents when two years of age. Graduated from Jefferson Medical College in Philadelphia, Pa., in 1866. He practiced medicine but a short time, during that time. He was physician for the School for the Blind. Dr. Dodge was never married.

Dr. Milus Killian died March 14, 1868, in his 64th year. He had been a resident of this community more than 25 years, where he first practiced medicine. Dr. Killian was quiet and retiring, but firm in all of his dealings.

Dr. Claibourne Watkins, born in Little Rock March 2, 1844; died July 20, 1908; graduated from Jefferson Medical College in 1868. Dr. Watkins was a descendant of one of the oldest families of Little Rock. He was a grandson of Maj. Isaac Watkins, who came to Little Rock in 1821 from Kentucky. He married Miss Mildred Farlee of Mississippi.

Dr. J. G. Haliburton, born April 14, 1824; died January 23, 1870. Came to Little Rock during the early 40's. Dr. Haliburton was a member of the Medical Association of Little Rock and Pulaski County, organized at the close of the Civil War. He married Miss Thyrza Miller of North Carolina in 1869.

Dr. J. J. McAlmont, born December 19, 1821; died September 26, 1896. Attended Geneva Medical College in New York State. In 1848 he attended Cleveland Medical College, and graduated in 1849. Came to Little Rock in 1850. Practiced medicine in Benton (Saline County) two years, and returned to Little Rock. He was in the drug business with Dr. Solon Bourland. Later resumed the practice in 1883 and continued until his death. Dr. McAlmont was mayor of Little Rock in 1866. He was a thirty-third degree Mason. He married Martha Gregg, October 22, 1845.

Dr. Corrydon McAlmont, born at Hornellesville, N. Y., November 18, 1827; graduated from Geneva Medical College, N. Y., in 1851; came to Little Rock in 1853 and became a partner of Dr. George D. Sizer. Military service: Assistant surgeon of Rust's Brigade at Corinth, Miss.; was discharged on account of ill health June, 1862. Recommended for hospital duty in Little Rock in September, 1862, where he served



federate side during the Civil War as surgeon. Dr. Peyton married Caroline Crease.

Dr. James A. Dibrell, born in Van Buren, Ark., August 20, 1846; died November 17, 1904; graduated from the Medical Department of the University of Pennsylvania in 1870; came to Little Rock in 1870, and was one of the leading physicians and surgeons until his death. He served as dean of the Medical Department of the University of Arkansas, and was a member of the State Board of Health for several years. Dr. Dibrell was very active in various Medical Societies of which he was a member. In 1878 he married Lallie Reardon of Little Rock.

Dr. Edward Meek, born in Indianola, Iowa, January 23, 1853; died April 4, 1937; graduated from the College of Physicians and Surgeons of Kansas City, Mo., in 1877; located in Little Rock in the same year where he practiced until his death. Besides his large practice, Dr. Meek was interested in some of the leading institutions of the city and county. He was a thirty-second degree Mason and was an elder in the Christian church. In 1886 he married Miss Zelma Chick of Little Rock.

Dr. James H. Lenow, born in Memphis, Tenn., Feb. 18, 1850; died December 31, 1932; graduated from Jefferson Medical College, Philadelphia, Pa., in 1872, and immediately located in Little Rock. Dr. Lenow held many prominent positions of honor connected with the medical profession. In 1883 he married Mrs. Ella Fones. After her death, he married Mrs. Clara L. Goddard November 2, 1927.

Dr. J. G. Scarborough, born in Sullivan County, Tenn., in 1830. Graduated 1859 in medicine. During the latter part of the Civil War he was assistant surgeon of Jameson's regiment. Arrived in Little Rock after the war and devoted his time to the practice of medicine. He was one of the State Board of Examiners, and also connected with American Health Association. Dr. Scarborough married Miss E. J. Inge in Tennessee, 1857.

Dr. W. E. Wright, born in Hampton Roads, Va., 1814; died in Little Rock in 1880; graduated from the Medical College of Philadelphia, Pa., 1840; married Miss Lucy Macon Green in 1854.

Dr. M. J. McHenry, born in Shelby County, Ala., 1843; death ? Graduated in medicine from University of M. D. in Baltimore, 1870. Came to Jacksonville, Ark., in 1871. Served in the

Civil War and was a leading physician of Pulaski County. In 1872 married Miss Scott of Louisiana. After her death four years later he married Estelle Teague of Alabama.

Dr. James H. Southall, born in Smithville Isle of Wight County, Va., November 5, 1841; died July 22, 1901; graduated from the University of Louisiana, March 1, 1867; came to Little Rock in 1872. He assisted in the organization of the Medical Department of the Industrial University of Arkansas in 1879. He was married to Miss Gertrude Murphy of Memphis, Tennessee.

Dr. J. N. Barnette, born in Alabama, 1834; died ? Graduated from the University of Louisiana in 1857; came to Little Rock in 1875, and located in Argenta, and was a successful practitioner until his death. Dr. Barnette served in the Civil War. He married Miss Anna Bayakin of Mississippi in 1853. After her death, he married Miss Louise Slocum.

Dr. Edwin Bentley, born in New London, Conn., 1824; died November 27, 1904; graduated from the Medical Department of the University of New York, and from Bellevue Hospital Medical College of New York. During the Civil War he had charge of the General Hospital of Arlington, Va. Came to Little Rock barracks as post surgeon in 1876. Remained after retiring from the army as a prominent practicing physician until his death. Married Marguerite E. Williams of Washington, D. C.

Dr. F. M. Compton, born in Orange County, N. C., in 1820; graduated in Medical Department of the University of Pennsylvania, 1844; came to Little Rock in 1870 where he formed a partnership with Dr. E. Cross. Married Miss Esther Hastings of Willoughby, Ohio. Dr. Compton was a brother of Judge F. W. Compton of Little Rock.

Dr. R. M. Enders, born in Baton Rouge, La., in 1846; graduated from the University of Louisiana, 1869. He first located in Jefferson County; after a few years of practice there, he came to Little Rock where he practiced until his death. Dr. Enders was married in Arkansas to Miss Edith Kimbrough.

Dr. E. T. Easley, a prominent surgeon, volunteered his service during the yellow fever epidemic in Memphis, Tenn., and died in Memphis, October 30, 1878, before he was 36 years old. He was a member of the College of Physicians and Surgeons of early days.

Dr. Andrew Homer Scott, born at Dover, Pope



County, Ark., December 18, 1840; died April 30, 1909, in Little Rock; came to Little Rock in 1875; graduated from Jefferson Medical College in Philadelphia, Pa., in 1868. He devoted his entire life to the practice of medicine and surgery. He served four years in the Civil War as captain of cavalry forces. On May 2, 1877, he married R. Catherine Embree of Little Rock.

Dr. Roscoe Greene Jennings, born at Leeds, Kennebec County, Maine, June 11, 1833; died April 5, 1899; graduated from Medical School of Maine at Brunswick in 1856. Served as surgeon in the Confederate army. He was one of the founders of the Medical Department of the University of Arkansas. Dr. Jennings was very active in charity and civil affairs. On the 11th of April, 1869, married Miss Elizabeth Elliott of Camden, Arkansas.

Dr. L. R. Stark, born in St. Mathew's Parish, S. C., June 4, 1841; died April 9, 1909; graduated from New Orleans School of Medicine in 1867; came to Little Rock in 1879. He was a member of the Arkansas Industrial University and was very prominent in military affairs. In March, 1873, he married Miss Mary Cannon of Washington, Ark.

Dr. Thomas P. Blunt, born in Pulaski County, Ark., August 1, 1856. First studied medicine under Dr. J. M. Pertle, who was a well known physician of Little Rock. He became a successful practitioner. In 1878, Dr. Blunt married Lula Custer of Little Rock. After a short time, Mrs. Blunt died in 1880; he married Miss Anna Henry of Tennessee.

Dr. P. J. Mask was an early physician of Little Rock. Spent the last days of his life in country practice at Fourche Dam (or the Fletcher Farm.) Dr. Mask was a native of North Carolina.

Dr. S. C. Murphy, a Little Rock physician, was treasurer of the Pulaski County Medical Society in 1872. No other information.

Dr. Edward V. Deuell of New York was a member of the Pulaski County Medical Society in 1872; graduated from the University of Louisville, Ky., in 1864.

Dr. Jacob Deutch was corresponding secretary of the Medical Society in 1869. He was city physician at one time.

Dr. J. H. Boheim (of Argenta) was health inspection officer during the yellow fever epidemic in 1878. Died in Memphis, Tenn., of a disease resembling yellow fever.

Dr. T. E. Murrell graduated from the University of Maryland in 1875.

Dr. J. W. Burns graduated from Starling Medical College of Columbus, Ohio, in 1866.

Dr. W. P. Rayburn lived in Little Rock in 1837.

Dr. H. Haythornewhite was a member of the Medical Association at the close of the Civil War.

Some of the following names appear in the early city directories of Little Rock from 1872 to 1880. No other information.

Dr. J. W. Camp, physician and surgeon.

Dr. J. G. Zeigler, physician and surgeon.

Dr. Thomas M. Kelley, physician.

Dr. H. J. Cardin, physician.

Dr. J. S. Cook.

Dr. J. H. English (J).

Dr. E. H. Skipwith.

Dr. Norbidy Jackson.

Dr. J. M. Pirtle.

Dr. J. E. Quidor.

Dr. Thomas Smith.

Dr. J. W. Birge, oculist and physician.

Dr. Spooner.

Dr. Robert White.

Dr. Isaac Denham.

Dr. W. G. Von Podenitz (Von Poelintz).

Dr. J. T. White.

Dr. George C. Hart, member of one of the early societies.

Dr. A. Braesianf—Brainard U.S.A.

Dr. E. H. Bennett.

Dr. George Patten.

Dr. Robert P. King.

Dr. W. Little.

Dr. Richie.

Dr. W. N. Craig. Came to Little Rock in 1829; died in Washington, Ark., October, 1837.

Little of the early authentic history of medicine in Arkansas has been preserved and recorded. All information concerning the names listed has been secured from different writers of Arkansas history, and from obituary and marriage notices found in the files of daily papers published in Little Rock.

Pulaski County was formed in 1818.





THE JOURNAL

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THE ANNUAL SESSION

More than 400 physicians attended the 72nd  
annual session of the Society in Little Rock,  
April 15-17th. The scientific programs were of  
an unusually high standard and practical value.  
The scientific and commercial exhibits were larger  
than in any previous session. Social features on  
both evenings with the Pulaski County Medical  
Society as gracious hosts afforded ample oppor-  
tunity for fellowship and gayety.

Important actions of the House of Delegates  
were selection of Sid Wrightsman, Jr., as execu-  
tive secretary of the Society; approval of a pro-  
posed act which would permit counties to levy  
a special millage tax for the support of public  
health activities; approval of the Minnesota plan  
for expert medical testimony; changes in the  
constitution and by-laws which would permit an  
annual assessment not to exceed \$25 per year  
on each member and granting the section on  
ophthalmology and otolaryngology ad delegate;  
establishment of an endowment fund in honor  
of deceased members; and approval of activities  
of the National Physicians Committee and of the  
American Association of Physicians and Surgeons.

The following officers were elected and in-  
stalled: President, P. W. Lutterloh, Jonesboro;

President-Elect, Euclid M. Smith, Hot Springs  
National Park; First Vice-President, Chas. R.  
Henry, Little Rock; Second Vice-President, J. O.  
Rush, Forrest City; Third Vice-President, T. P.  
Foltz, Fort Smith; Secretary, W. R. Brooksher,  
Fort Smith; Treasurer, Paul L. Mahoney, Little  
Rock; Delegate to the American Medical As-  
sociation, W. R. Brooksher, Fort Smith, and  
Alternate, Jos. F. Shuffield, Little Rock. Subject  
to availability of hotel accommodations the So-  
ciety will meet in Hot Springs National Park  
in 1949.

ACADEMY ORGANIZED IN ARKAN-  
SAS FOR GENERAL PRACTITIONERS

R. B. ROBINS, M. D.  
Camden

Arkansas now has an organization for the gen-  
eral practitioner which promises to become a  
group as active as any of the organizations for  
the physicians who specialize. The organization  
was perfected on April 16 at Little Rock during  
the meeting of the Arkansas Medical Society  
and is known as the Arkansas Academy for Gen-  
eral Practitioners which is a branch of the Amer-  
ican Academy of General Practitioners. Dr.  
Paul A. Davis, Akron, Ohio, who is president of  
the American Academy for General Practitioners,  
was present and aided in the organization of the  
Arkansas Chapter.

Officers elected were Dr. R. B. Robins of Cam-  
den, president; Dr. Fount Richardson, Fayette-  
ville, president-elect; Dr. L. H. McDaniel, Tyroneza,  
secretary-treasurer. Members of the Board of  
Directors are Dr. Charles H. Reagan, Marked  
Tree; Dr. S. A. Drennen, Stuttgart; Dr. John H.  
Wilson, Magnolia; Dr. Norman W. Peacock, Ash-  
down; Dr. W. B. Grayson, Little Rock; Dr. Ben-  
jamin N. Saltzman, Mountain Home; and Dr.  
Ralph Kramer, Ft. Smith.

All applications for membership in the Amer-  
ican Academy of General Practice must first be  
submitted to the Arkansas Academy through its  
secretary, Dr. L. H. McDaniel of Tyroneza, Arkan-  
sas. The first formal meeting of the Arkansas  
Chapter will be held the day before the next  
annual meeting of the Arkansas Medical Society  
in Hot Springs in April, 1949.

All qualified general practitioners in Arkansas  
are urged to send their applications for member-  
ship to Dr. L. H. McDaniel of Tyroneza, Arkansas.  
Only members of the Arkansas Medical Society  
and physicians who have been in general practice  
three years are eligible for membership.



## EDITORIAL COMMENT

### ARKANSAS HEADQUARTERS AT CHICAGO SESSION OF THE AMERICAN MEDICAL ASSOCIATION

Members who will attend the coming session of the American Medical Association in Chicago, June 21st-25th, are invited to call at the Arkansas Medical Society Headquarters, located in the Palmer House. The provision of a central meeting place for members of the Arkansas Medical Society will permit members to meet each other and informal gatherings which have not been possible in previous years. It is hoped that all members present in Chicago will call during their stay.

### RANDOM THOUGHTS OF THE SECRETARY

March 30th. And from whose office would you suppose we are greeted over long distance today by: "Is your party on the line?"—L. H. McDaniel, the busy practitioner who has adopted city mannerisms.

April 14th. By the unaccustomed motor way to Little Rock this afternoon and with the Council deliberating tonight, finding that acting in an advisory capacity to the School of Medicine brings its problems with solutions not obvious.

April 15th. The 72nd annual session begins and again we hear the objections to meetings in the latter part of the week, a difficulty which may be solved with the 1949 annual session. Too, the comments on the appearance of the program would indicate that not too many members read *The Journal*. Tonight with the Pulaski County Medical Society as gracious hosts and a pleasant first day may well be recorded.

April 16th. With the early birds as of yore, Tate, McCurry, Kennerley, Evans, Allbright, Lutterloh, and others to breakfast and ahead of time at the meeting where T. D. Brown presides in expert fashion for most of the day. Tonight amusing ourselves with flashlight photography of the joyous throng at the annual banquet session, acquiring some photographs which may as well not be exhibited. In the later evening come Foltz, Wharton, Olson, Koenig and others with ladies to make further merry in the morning.



## PERSONALS AND NEWS ITEMS

Gilbert Dean has been elected secretary of the Little Rock School Board.

B. N. Saltzman has been elected surgeon of the Mountain Home post, Veterans of Foreign Wars.

BORN—To Dr. and Mrs. John L. Ruff, a son, John Allen, on February 18, 1948.

A diagnostic cancer clinic was conducted at City Hospital, Fayetteville, March 25th by D. W. Goldstein, I. F. Jones and W. R. Brooksher, Fort Smith.

Woodruff County Medical Society has elected the following officers: President, J. W. Morris; vice-president, F. C. Maguire; secretary-treasurer, C. E. Dungan; delegate, C. E. Dungan, and alternate, F. C. Maguire, Sr.

The Sebastian and the Muskogee (Oklahoma) County Medical Societies met in joint dinner session at Fort Smith April 13th with the following program presented by members of the Muskogee society: "Anorexia of the Newborn," George Kaiser; "Spinal Anesthesia in Obstetrics," John E. Horn, and "Urological Problems in Obstetrics and Gynecology," Eugene Henry.

J. K. Thompson, Secretary.

Phillips County Medical Society has elected the following officers: President, M. Fink; vice-president, R. L. Chrestman; secretary-treasurer, J. B. Terry; delegate, J. W. Butts, and alternate, J. B. Terry.

Greene County Medical Society met in dinner session at Paragould April 13th for the following program: "Indications for Exploring the Common Duct," Gilbert Dean; "Cancer of the Lip," James H. Growden, and "Skin Cancer," W. G. Cooper, all speakers of Little Rock.

W. McD. Lamb, Secretary.

Benton County Medical Society has elected the following officers: President, J. L. Pickens; vice-president, K. A. Siler; secretary-treasurer, G. C. DeBolt; delegate, C. S. Wilson, and alternate, S. M. Wilson.



## PROCEEDINGS OF SOCIETIES

The Craighead-Poinsett County Medical Society met in dinner session at Jonesboro April 2nd for the following program: "Treatment of Fractures About the Elbow," H. B. Boyd, Memphis, and "Upper Respiratory Infections in Children," Barton Etter, Memphis.

Lonoke County Medical Society has elected the following officers: President, Robert M. Kelly; vice-president, W. R. Warford, Jr.; secretary-treasurer, T. E. Burrow; delegate, R. M. Kelly, and alternate, W. R. Warford, Jr.

Mississippi County Medical Society has elected the following officers: President, John Elliott; vice-president, Eldon Fairly, and secretary-treasurer, F. E. Uteley.

Clay County Medical Society has elected the following officers: President, O. H. Clopton; vice-president, W. E. Turner, Jr.; secretary-treasurer, J. E. McGuire; delegate, N. J. Latimer, and alternate, J. E. McGuire.

Union County Medical Society has elected the following officers: President, G. D. Murphy, Jr.; vice-president, J. W. Harper; secretary-treasurer, John H. Pinson, Jr.; delegate, H. J. Mayfield, and alternate, W. S. Riley.

St. Francis County Medical Society has elected the following officers: President, C. N. Bogart; vice-president, J. M. Roy; secretary-treasurer, J. O. Rush; delegate, J. O. Rush, and alternate, J. M. Roy.

Carroll County Medical Society has elected the following officers: President, Ross Van Pelt; vice-president, V. E. Sammons; and secretary-treasurer, W. A. Woodcock.

A. S. Koenig, Fort Smith, and M. J. Kilbury, Little Rock, took special work on the Papanicolaou method at Cornell University, New York, during March.

W. A. Parker has been elected president of the School Board at DeValls Bluff.

Ralph M. Sloan has been elected a director of the Jonesboro Rotary Club.

Norman Peacock has been elected president of the Ashdown Rotary Club.

Gerald K. Patton, DeQueen, is now on duty with Army Recruiting Headquarters, El Paso, Texas.

James O. Cooper, formerly of Jonesboro, has opened an office at El Dorado for the practice of pediatrics.

A. Dillon Garner, Paragould has been awarded certification as Diplomate of the American Board of Surgery.

Carl A. Rosenbaum, Little Rock, conducted a diagnostic cancer clinic at Camden April 21st.

B. N. Saltzman has been elected exalted ruler of the Elks Lodge at Mountain Home.

Ellis Gardner has been elected vice-president of the Russellville Rotary Club.

S. W. Chambers has been elected tail-twister of the Mountain Home Lions Club.

Louis E. Browning, Little Rock, now assigned as post surgeon at Camp Holabird, Maryland, has been promoted to major.

W. E. Hamil, Pocahontas, spent a recent vacation in Florida.

S. P. Stubbs, Jr., has been transferred from Fort Smith Sub-Regional Office to Veterans Hospital, Fayetteville.

Henry Hearnberger has been elected surgeon of the Stephens Post, American Legion.

Stanley M. Gates has been transferred from the Fort Smith Sub-Regional Office to the Little Rock Regional Office, where he will be head of the Division on Tuberculosis.





## PRIMARY TULAREMIA OF THE LUNGS MASQUERADING AS OTHER FORMS OF LUNG PATHOLOGY<sup>1 2</sup>

Major Harley E. Cluxton, Jr., Major Eugene E. Clifton,  
and Captain John A. Worley, Medica Corp, AUS.

The purpose of this paper is to emphasize; first, the occurrence of primary tularemia of the lung without the presence of visible skin lesion or history of any lesion; secondly, the diagnostic problem involved by the bizarre clinicopathological pattern of primary tularemia of the lungs; thirdly, the importance of instituting streptomycin therapy as soon as possible; fourthly, the importance of surgical intervention in some cases; and, fifthly, the circumstantial evidence that one of the cases reported herein was infected directly by the aereogenic or oral pathway from another human.

Tularemia is a specific infectious disease caused by the *Bacterium tularensis* (*Pasturella tularensis*). It is an endemic disease of man and has been reported from every state of this country except Vermont, as well as many foreign countries. Francis (1) lists at least 20 methods by which man may be infected. The common sources of infections are: the rabbit (except the domestic type), bites of insects, particularly the wood tick (*Dermacentor andersoni*), the dog tick (*Dermacentor variabilis*), which cause a large number of infections in the Southern states, and the deer fly which is the principal source in Utah. Other sources of infections are: bites of animals both domestic and wild, contact with sheep, mostly via ticks and their fecal deposits in the wool, skinning and dressing of mammals, birds and cold blooded animals, and laboratory infections through contact with the infected animals or culture media.

For its propagation in nature, the *Bacterium tularensis* depends on the bloodsucking insects; ticks, fleas, lice, and flies, which transmit the infection from animal to animal. A hereditary transmission through the eggs of the tick to the larvae nymphae maintains continuity in the chain of infection.

### Pathology

Regardless of the site of the lesion, the pathological findings in tularemic lesions are all the same. Grossly, the focal lesions are usually firm nodules resembling hard tubercles. At first the lesions consist of small focal areas of necrosis containing a moderate amount of large mononuclear round cells and polymorphonuclear infiltration. Localized hyperplasia of the reticulo-endothelial system soon occurs and as the lesions enlarge the central areas of liquefactive necrosis increase. In the chronic lesions epithelioid cells and large multinucleated giant cells are noted. A marked peripheral fibroblastic response is frequently present. The older the lesion the greater the resemblance to chronic granuloma. The focal pulmonary lesions, a common site of involvement, may be very numerous, presenting a picture of military tuberculosis.

### Clinical Symptoms

The onset of tularemia in general is sudden. The patient can in most instances give the exact day and time of onset. There is usually a severe headache, chill and fever, with an initial rise in temperature above 104° accompanied by severe malaise, generalized aching and weakness with sweats and eventual loss of weight. These symptoms point to the presence of a bacteremia or septicemia. The symptoms of tularemia with pulmonary involvement are variable and present a difficult clinical picture especially in the absence of a tularemic ulcer. Pulmonary involvement may develop from a day or two to many months after the onset of a primary skin lesion. Indeed, in the cases here reported, no history of a definite skin lesion was obtained. In the pulmonary cases, there is usually a hacking, non-productive cough and dyspnea in addition to the general symptoms. Pleuritic pains may be very severe as in cases Nos. 2, 3 and 4. Pleuritis is usually followed by the development of a pale yellow, slightly cloudy pleural effusion of high specific gravity but low cellular count which jells quickly. The temperature records are not characteristic; they may present a relapsing, undulating, remittent, or continuous type curve. The irregular and spiking types with a remission and secondary rise is usually characteristic in the more severe or fatal pulmonary cases. Rapid, shallow respirations, cyanosis, delirium, confusion, or stupor, with rapid progress to a comatose state may be observed in the severest cases.

### Physical Signs

None of the findings due to the pulmonary

<sup>1</sup> From the Medical and Surgical Service of Army and Navy General Hospital, Hot Springs National Park, Arkansas.

<sup>2</sup> Read before Seventy-first Annual Session, Arkansas Medical Society, Little Rock, April 17, 1947.

\* From the Department of Pathology, Army and Navy General Hospital, Hot Springs National Park, Arkansas.



lesions are specific. Variance is found in accordance with the pathology. Since pleural effusion is frequently present, its clinical characteristics of dullness to flatness of percussion, absent breath sounds, and diminished to absent voice sounds, often predominate. Other signs that may be present are similar to those found in any other pneumonic process, depending upon its stage, size, and location.

### Laboratory Findings

The most surprising laboratory finding was a normal to slightly elevated white blood count with an occasional mild shift to the left whether the patient be mild, moderate, or so seriously ill as to be moribund. A constant finding was an elevation in the sedimentation rate. There is usually a complete absence of agglutinins in the blood during the first week of illness, but specific agglutinins for *Bacterium tularensis* are usually present at some time in the second week and gradually rise to a peak during the fourth to seventh week of illness. A titer of 1:1280 is often present in the third week. Agglutinins persist for months and even many years after there has been complete recovery of the patient. The skin test devised by Foshay (4) which consists of the intradermal injection of a killed bacterial suspension is reported to be positive as early as 48 hours after infection. This test was not used in our cases. Except for a transient albuminuria in the acute febrile stages of the disease the urine is normal. The red blood count and hemoglobin are usually normal.

The earliest roentgen findings in the chest of secondary pulmonary tularemia are enlarged and nodular hilar shadows. Later there is accentuation of pulmonary markings, and in some cases patchy areas of increased density. In the primary pulmonary form there is no consistent roentgen finding and interpretations vary from pleural effusion to multiple lung abscesses.

### Diagnosis

The diagnosis of primary tularemia of the lung is difficult because there is no history of skin lesion suggestive of tularemia. The best adjunct to an early diagnosis of primary tularemia of the lung is a high degree of suspicion on the part of the physician. The presence of a pneumonia in a patient from an endemic area with a normal or slightly elevated white count should stir this suspicion. The blood agglutinins often are not present within the first seven to twelve days and therefore afford no help when the patient is the sickest. The intradermal test of Foshay is indi-

cated after the first 48 hours of illness. In the seriously ill patients, a therapeutic trial of streptomycin, two grams daily for two days, is indicated rather than to jeopardize the patient's life by watchful waiting until the laboratory tests have been completed.

### Treatment

It has now been established that streptomycin is the specific antibiotic for tularemia (5), (3), (6). The recommended dosage is one to two grams daily for seven to fourteen days, depending on the severity of the disease. In the seriously ill cases of streptomycin may be given intravenously for the first 48 to 72 hours. The efficacy of various other therapeutic agents other than streptomycin used in the treatment of tularemia could not be substantiated by the experimental work of Bell and Kahn (7). In spite of streptomycin specificity in the treatment of tularemia, there occasionally arises the need for surgical intervention as illustrated in cases two and three.

### Portal of Entry

The *Bacterium tularensis* can enter the body in a number of ways and it requires no particular portal of entry. The mode of transmission in laboratory workers is often obscure. Russian workers suspect the aerogenic pathway because the wearing of face masks apparently prevents infections (2). The increasing incidence of tularemic pneumonia, both the primary type and that which is secondary to bacteremia with localization of *B. tularensis* in the lungs in the absence of a primary lesion elsewhere, suggests that either at the site of the infection no significant local reaction occurred or that the portal of entry was afforded by the oral nasal passages. Howe and his associates (3), in their series of seven laboratory workers with tularemia, found no primary tularemic ulcer of the skin or mucous membranes. One of the cases with tularemic pneumonia had had probable exposure to an aerosol of *B. tularensis*. Another of the cases exposed to an infectious aerosol developed chills and fever without any roentgenographic changes in the lungs, or local or general lymphadenopathy. Their seventh case had accidentally spilled a suspension of *B. tularensis* on the hands approximately two weeks prior to admission. It is significant that in this case no skin lesion was present. So far there is no known human case-to-case transmission that is proven. The circumstantial evidence that the fifth case herein reported is an incidence of such transmission seems justified.



From a practical standpoint it is best to think of tularemia as a systemic disease rather than a local infectious disease that may become systemic. The classification of tularemia into the various clinical types of ulceroglandular, glandular, oculoglandular, typhoidal, and pulmonary tularemia (either primary or in association with one of the other types) tends to focus the attention of clinicians on the portal of entry rather than the systemic nature of the disease. The term primary tularemia of the lungs is used here to contrast it with the other types of tularemia which may have associated pulmonary involvement. If one accepts the occurrence of tularemia in a person without there being a visible local lesion, and if one also accepts the probability that tularemia may be acquired through the oral or nasal passages, then a detailed classification is cumbersome. The need for such a classification becomes less apparent in the presence of the increasing number of cases and endemic areas. A more practical and simplified classification is: Tularemia with or without skin lesion, with or without glandular involvement, and with or without visceral involvement.

The following cases were selected to illustrate the diagnostic problems involved and are therefore presented in some detail. The illustrative slides of the X-rays and autopsy material used at the time this paper was given before the Arkansas State Medical Society were not submitted for publication due to technical difficulties in obtaining satisfactory reproductions.

### Case I

This 33-year-old white male entered the hospital 5 July 1946 with a referred diagnosis of fever of undetermined origin.

Chief complaint: Chills and fever for one week duration.

Present illness: The patient stated that he was in excellent health, and working every day at a sawmill until around the 28th of June 1946, approximately one week before admission, when he suddenly became nauseated, vomited, felt feverish, had a headache, and ached all over. For the next 24 hours he continued to have a high fever with complete loss of appetite and repeated bouts of vomiting. On the 29th of June 1946, he began to develop a dry, hacking cough which occurred very frequently and persisted until the time of admission. He denied having any chest pain or shortness of breath. Loose stools two to three times a day without blood, mucous, or pus, had been present beginning three

days before admission to hospital. He had been exposed to ticks and several had bitten him during the previous weeks. However, he had noticed no sores or rash. A history was given of drinking unpasteurized milk and well water which had not been tested for a year. There was no history of similar illness in family or acquaintances.

Physical examination: The patient was a well developed, well nourished, white male who appeared acutely ill, but was in no acute respiratory distress. There was evidence of recent weight loss. The admission temperature was 103°. The skin was hot and dry. No ulcers were noted. Examination of the head including the special senses, nose, mouth, throat, and pharynx were all normal. The neck revealed nothing abnormal. Examination of the thorax and lungs revealed no abnormalities. The vascular system was normal. The blood pressure was 125 systolic, and 70 diastolic. Upon examination of heart a soft systolic murmur which was not transmitted was heard at the apex. The remainder of the examination revealed no abnormalities.

Laboratory examinations were as follows: An increased sedimentation rate of 19 mm. in one hour (Wintrobe method), a white blood count of 9,800 with a normal differential; the urine was normal, and a blood Kahn was negative. A blood smear for malaria parasites was negative. A stool specimen obtained on 8 July revealed no intestinal pathogens. A blood culture on admission revealed no growth in 21 days. Agglutination for *E. typhosa*, *S. paratyphi*, *S. schottmuelleri*, tularemia, and undulant fever, were all negative on 8 July 1946. A sedimentation rate repeated on 9 July 1947 was 42 mm. per hour. A white blood count repeated on the same day was elevated to 17,700 with otherwise normal blood morphology. No acid fast bacilli could be obtained from the sputum or from gastric washings. The heterophile antibody was negative on 17 July 1946. Agglutinations for tularemia revealed a positive titer of 1:2560 on 11 September 1946. X-ray examination of the chest on 6 July 1946 revealed a mediastinal mass on the right side at the level of the aortic knob, which projected into the right thorax for approximately 3 cm. In the lateral view the mass was noted to be within the middle third of the mediastinum. An X-ray taken on 16 July 1946 revealed the upper mediastinum to be  $\frac{1}{2}$  cm. wider. No change was reported on 6 August 1946. On 13 August 1946 the mediastinum showed a decrease in size of 0.5 cm. No change



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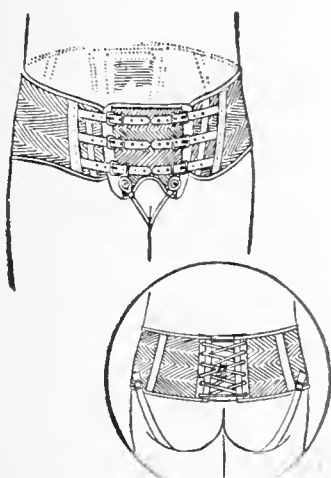
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was noted on 6 September 1946. On 13 September 1946 there was still no change. At this time the patient was started on streptomycin therapy and 10 days later, there had been a marked decrease in the size of the mediastinal mass to within almost normal limits. Bronchoscopic examinations failed to add any information.

Course in hospital and comments: The differential diagnosis in this case on admission seemed to point most likely to a mediastinitis or lymphoblastoma. The white count was quite low for a mediastinitis. The patient was started on penicillin, 30,000 units every four hours day and night, intramuscularly. His fever abated and he began to improve subjectively and objectively but there was no change in the size of the mediastinal mass by X-ray. After several weeks the patient was taken off penicillin and promptly had an exacerbation in his fever and general malaise. Because of the change in the width of the mediastinum on X-ray the possibility of a paratracheal cyst was entertained; however, there was no evidence of a fluid level. Bronchoscopy further helped to eliminate this possibility. The use of X-ray therapy had been entertained during this patient's entire illness, but it was decided to wait until a more definite diagnosis could be ascertained. Finally, it was decided that all agglutinations and other attempts to make a diagnosis on this patient should be done and if reported negative, X-ray would be instituted because of the likely possibility of this being a lymphoblastoma. In addition, the likelihood of brucellosis was considered. However, agglutinations were negative. On 11 September 1946 an agglutination for tularemia was repeated and was reported as 1:2,560. On this basis the patient was started on streptomycin which seemed to hasten the patient's trend toward improvement. A return of the mediastinal structures to normalcy followed this therapy. In a clinical review of this case the patient should have had a repeated blood agglutination for tularemia at least once a week, even though the first one was negative. This negative report within approximately seven to ten days after onset of the illness in this patient illustrates the fact that agglutinations for tularemia are seldom positive within 10 to 14 days. The admission impression diagnosis of this patient included the possibility of tularemia; however, in the absence of skin lesion, and with the patient's apparent response to penicillin therapy, as well as supportive measures, the possibility of tularemia became less likely. The radiologist did not at first

interpret the hilar markings as being unusual; however, on a review of the X-rays after the diagnosis had been made, one was inclined to feel that there were increased hilar markings. This, then, would be more compatible with the type which is thought to begin in the mediastinal nodes and then spreads to the periphery and may or may not go into pneumonia, lung abscess, etc. The Foshay skin test might have been very helpful during the early course of this patient's illness as it is possible it would have revealed a positive reaction whereas the first agglutination for tularemia was negative. The patient's temperature record was of the spiking remissive type, going as high as 104° and then diminishing gradually within four weeks to around the first of August when it became normal. It is interesting that this patient's white count never showed any appreciable change. On one occasion it was reported at 17,000, but for the most part it was within normal range below 10,000. The differential was always normal. The sedimentation rate, however, continued to increase, even though the patient had improved clinically. The sedimentation rate returned to normal following streptomycin therapy.

### Case II

This 53-year-old white male entered this hospital 20 August 1946. He was referred to this hospital with a presumptive diagnosis of pulmonary malignancy.

Chief complaint: Cough and pain in the left chest.

Present illness: This patient's occupation was that of a farmer. He had been well until 1 June 1946, at which time he had an acute onset of chills and fever with a non-productive cough and pain in the left chest. A local physician was summoned and treated him at home with sulfonamides for a period of several weeks during which time the patient said he felt better generally. He continued to have an elevation in his temperature which "seemed to linger on" and he remained in bed because of this until about 28 June 1946. At this time he became ambulatory although he did not feel completely well. He consulted another physician who took an X-ray and told him that his left chest contained pus but that "it would probably clear up without a tap." About 15 July 1946 he went to a Veterans' hospital in Tennessee because of the persistence of the pleural effusion. He stayed for approximately 12 days and because of subjective improvement he was discharged without



any definite therapy. Upon returning home he felt fairly well for approximately two weeks until 10 August 1946, at which time he developed an aching pain in the lower posterior portion of the left chest. There was also a sharp stabbing pain that was accentuated on coughing and deep breathing. He had frequent coughing spells, usually in the morning and late at night, which were productive of a white, somewhat foamy, sputum that was not purulent, fetid, or blood streaked. He estimated the total amount of sputum expectorated over a period of 24 hours to be approximately  $\frac{1}{2}$  cupful. By this time, he began to notice exertional dyspnea and found that he breathed better in the sitting-up position than when he was lying down. He had lost about 30 pounds since the onset of the present illness. There was no history of the patient's having had any lesion or lesions which might represent a primary tularemic affair. There was no history of contact with rabbits. He stated that he had pulled several ticks from his body at the end of a day's work but had noticed no irritation at these sites.

**Physical examination:** The patient was dyspneic and appeared to be chronically ill with some emaciation. The skin was sallow in color throughout. Examination of the special senses revealed no abnormal findings except for some slight decrease in hearing in the left ear. The trachea was found to be deviated to the right. Examination of the thorax revealed a marked respiratory lag anteriorly and posteriorly in the left hemithorax. There was flatness of percussion, absent breath sounds and decreased voice sounds over the lower portion of the left thorax posteriorly. The blood pressure was 114 systolic and 65 diastolic. The pulse was rapid and regular, but otherwise normal. Examination of the heart revealed the apex impulse in the fourth anterior interspace just outside the lateral sternal margin. The rhythm was regular and the rate was rapid. No murmurs were heard. Upon examination of the abdomen the liver was found palpable approximately 6 cm. below the right costal margin. The edge was sharp, smooth and non-tender. Remainder of the examination revealed no particular abnormalities except some evidence of an old burned-out rheumatoid arthritis, particularly of the hands with ankylosis of the midphalangeal joint of the left fourth finger.

**Laboratory examination:** A complete urinalysis was normal. The sedimentation rate was 39 mm. per hour (Winthrobe method). A complete blood count revealed no abnormalities except for a mild normocytic anemia. A blood

Kahn was negative. Sputum examination was made for tubercle bacilli and none were found. At thoracentesis on 22 August 1946, 2,100 cc. of a straw colored fluid were obtained which was sent to the laboratory and found to contain 300 red blood cells, 540 white blood cells per cc. with 96% lymphs and 4% polys. The total protein of the fluid was 4.3 gm.% and the specific gravity was 1.018. A guinea pig was reported negative 18 days after inoculation with the fluid obtained at thoracentesis. A culture of the fluid with several types of media was normal, as was also a smear. The fluid was concentrated for tumor cells but none could be found. During the course of this patient's hospitalization he had a total of five thoracenteses, all of which were not diagnostic. A chest X-ray on 21 August 1946 revealed marked pleural effusion on the left with considerable displacement of the heart and mediastinum toward the right. A chest X-ray taken following the first thoracentesis was reported as showing considerable free fluid in the left pleural cavity. There had been a definite shift of the heart and mediastinum back toward the left. The apices of the lungs were clear bilaterally. An anteroposterior and lateral Bucky film of the chest did not add any additional information. Subsequent X-rays, including lipiodol studies, revealed marked thickening of the pleura with accumulation of fluid shortly after a thoracentesis in addition to the collapse of the entire lower lung. A bronchoscopic examination done on 6 September 1946 revealed the left lower main bronchus to be obstructed due to compression of the bronchial wall at its origin. No growths were observed.

**Course in hospital and comments:** The initial clinical impression on this patient before all the laboratory procedures had been carried out was that he probably had a primary carcinoma of the lung with questionable metastasis to the liver. Another impression was that he might have a pleural effusion, chronic, with healing empyema, secondary to pneumonia. However, when one included the X-ray evidence, as well as the bronchoscopic evidence, into the whole picture there seemed to be more pointing to a tumor of the lung, probably bronchogenic in nature and probably a carcinoma. With the presence of the rather marked lymphocytosis in the pleural field, the possibility of tuberculosis was entertained but it was thought to be very unlikely in view of the clear right lung and the clearness in both apices. It would also be rather difficult to explain tuberculosis as giving the pressure on the bronchus.



With the physical and X-ray evidence of the spread of fluid and air it seemed likely that the lung was fairly free and that one would be justified in performing an exploratory operation on the left thorax. Patient was seen in consultation on 25 September 1946 by the regional surgical consultant and it was recommended at that time, before an exploratory operation, that agglutinations should be obtained, among which should be tularemia. Agglutinations obtained on 25 September 1946 were positive for tularemia 1:320 dilution. This was repeated on 27 September 1946 and found to be the same—1:320. During the patient's hospitalization up to this time he continued to run an elevation in temperature with complete remission within the 24 hours. The highest temperature went was 104° the second day after admission. He had another spike of 103° the third day, and then every day thereafter the temperature would rise from 1 to 1½ degrees above normal. On supportive therapy which included multivitamins, amino acids, and a high caloric diet, the patient improved generally, but continued to feel rather dragged-out with loss of strength. Upon receipt of the positive agglutinations for tularemia he was started on streptomycin, at first two grams a day, then increased to four grams a day. He became afebrile, his appetite returned, the general malaise disappeared and he began to gain weight. The X-ray findings of collapse of the left lower lobe remained unchanged, however. This finding still included the possibility of a co-existing pulmonary malignancy so the patient was transferred to surgery. He was given a temporary discharge from the hospital on 25 October 1946 and was told to return on or about 8 November 1946. On his return to the hospital his condition was status quo objectively. The patient was considered to be in good physical condition despite the fact that he had regained but five of the 30 pounds he had lost in weight. On 19 November 1946 an exploratory thoractomy was done and it was found that the entire left lung was encapsulated by a firm, thick, fibrous capsule, and the pleural space was filled with yellowish gelatinous material plus yellow fluid. A decortication was performed with tube drainage. His postoperative course was entirely uneventful. Recovery from thereon was progressive and rapid. At the time of his discharge from the hospital on 9 December 1946 X-ray examination of the chest showed complete re-expansion of the left lung with only slight pleural thickening at the left base and one small pocket of pneumothorax at the base. Pathological diagnosis of the cap-

sule removed from the thorax was pleuritis, fibrinous, non-specific. This case is particularly interesting from the standpoint that it illustrates that although tularemia may be burned out, or essentially burned out, the complications resulting therefrom can be very severe and will necessitate in some cases, as this has shown, the need for surgical intervention. The thick fibrinous pleurisy that this patient had was a mechanical factor which no type of drug therapy would eradicate. This case further illustrated the importance of the early use of streptomycin. There was never a change in the agglutination titer. This fact further lends support to the assumption that this patient's tularemia was in a relatively inactive stage.

### Case III

This 26-year-old white male entered the hospital 29 November 1946 with a referral diagnosis of lung abscess.

Chief complaint: Fever, malaise, and chilly sensations.

Present illness: Patient's occupation was that of farmer. His past history was non-contributory. On 7 November 1946, one week before the onset of the present illness, the patient was hunting and caught and skinned three rabbits. He and his family ate the rabbits, and about 14 November the patient, his mother and brother, developed fever and generalized aches associated with a slight unproductive cough. A local physician was called and he made a diagnosis of influenza. After approximately four days or about 20 November, the patient's mother and brother were better. The patient continued to become worse with a fever up to 106 degrees for two or three days. This fever was accompanied by chills and marked sweating. He had a chronic cough which was unproductive during this period and there also developed a sharp pain in the left chest exaggerated by coughing and deep breathing. Several times he had shown mental symptoms consisting of hallucinations. On 27 November 1946 because he had not improved he was admitted to a local hospital where examinations for malaria were done. In addition a chest X-ray was taken which revealed a mass in his left upper lung. He was started on penicillin and received continuous treatment for approximately 48 hours until transferred to this hospital. The patient's mother had an ulcer on her left hand, which was presumably tularemic. The patient's brother had no visible lesion or history of a lesion.



**Physical examination:** The patient was extremely ill and had cyanosis of his lips. The skin revealed a moderate decrease in turgor and moderate dehydration. There were no visible ulcers. Upon examination of the chest there was noted to be a lag on breathing on the left side. There was evidence of fluid in the left thorax and numerous crepitant to sub-crepitant rales were heard throughout the left chest. The blood pressure was 114 systolic and 76 diastolic. The apex impulse of the heart was in the fourth anterior interspace in the midclavicular line. The rhythm was regular. The rate was 120. No murmurs were heard. The remainder of the physical examination revealed no abnormalities.

**Laboratory examination:** The admission white count was 10,200 with a normal differential. The blood sedimentation rate was 29 mm. per hour (Wintrobe method). The remainder of the laboratory work which consisted of a red count, hemoglobin, blood chloride,  $\text{CO}_2$  combining power, and urinalysis was within normal limits. An agglutination for tularemia taken upon admission was positive 1:160. When repeated on the ninth of December it was positive 1:5,120. An agglutination obtained just prior to discharge was positive 1:1,280. X-ray of the chest on admission revealed a rather homogenous ovoid area in the left upper lung field. On the lateral projection this density appeared mainly posterior. The apical region appeared somewhat infiltrated as did also the region immediately inferior to the area of consolidation. In addition, there was evidence of a moderate amount of pleural effusion as noted by the obliteration of the left costophrenic angle and a band of density extending up along the lateral chest wall. There was also an area of localized density in the left base. The right lung field appeared clear. A chest X-ray on 3 December 1946 revealed increased density in the entire left hemithorax except for the apical region. There was a suggestion of mediastinal shift to the right. The right hilar region was of slightly increased prominence. Otherwise, the right lung field was entirely clear. An X-ray taken on 6 December 1946 revealed an almost complete opacity of the left lung field with the exception of the apical portion. No mediastinal shift was noted, suggesting an associated atelectasis with a large pleural effusion.

**Course and comments:** This patient was extremely ill on admission with temperature 105 to 106 degrees which remained up for the first 72 hours. He was started immediately on intra-

venous streptomycin of 4 gms. per 24 hours. Except for a slight exacerbation of his temperature which rose momentarily to 104 degrees on 3 December 1946 there was a steady decline in the temperature to normal on 14 December 1946. As the temperature approached normal the patient was put on intramuscular streptomycin, 2 gms. per day. The patient developed an ileus which responded to a Miller-Abbott tube. As the patient began to improve clinically his sensorium cleared and he became much more cooperative. In spite of streptomycin therapy and supportive measures the patient's objective chest findings progressed, or persisted unabated. On 10 December 1946 he was transferred to surgery where a closed tube drainage of the left thorax was instituted. Following the operation there was gradual improvement in his condition both objectively and subjectively. Chest X-rays revealed steady improvement with re-expansion of the lungs and clearing of the pleural space. Drainage ceased about 19 December 1946 and the catheter was removed. There was no further accumulation of fluid and the patient's lung continued its rapid clearing. The persistence of an increased density in the middle left lung field on X-ray was suggestive of encapsulated pleural fluid. On two successive days, attempts were made to aspirate fluid from this area but none was obtained. The patient was then permitted to be up and around. He showed rapid return of strength and weight despite the persistence of the area of increased density described above.

This case illustrates the fulminating type of primary tularemia of the lungs. In spite of streptomycin therapy, surgical intervention was necessary. It is interesting to note that neither the patient nor his brother had a skin lesion whereas the mother did. Whether the source of infection was by inhalation of contaminated rabbit fur or by the ingestion of inadequately cooked meat cannot be postulated with any degree of accuracy. It is also possible that the patient and his brother had no local skin reaction at the portal of entrance.

#### Case IV

This 29-year-old colored male entered the hospital 15 January 1947. He arrived by ambulance accompanied by his brother who gave the following history because of the stuporous moribund condition of the patient.

**Present illness:** Around the latter part of December 1946, the patient developed a chest



cold which improved with simple home remedies. On 2 January 1947 he killed some rabbits which he brought home and cleaned. (This was also done by the historian and another brother who remained well.) Following this, the patient's cold became worse. On the night of 5 January 1947 he went to bed because he was "sick." A physician was called who diagnosed his condition as a "touch of pneumonia." Penicillin pills, white capsules, and a cough syrup were prescribed, all of which seemed to benefit the patient a little. About 10 January 1947 the patient became short of breath, had fever up to  $105^{\circ}$ , and developed a cough which was non-productive. Very shortly thereafter he became delirious. It was stated that the patient indicated parasternal chest discomfort bilaterally which was benefited temporarily by "greasing the chest." No history of chills or hemoptysis was obtained. There were no symptoms related to the gastro-intestinal system given. A history later obtained from the patient's wife revealed that she too became ill shortly after her husband. Her history will be described in detail later (Case V). There was no history of any skin lesion or sore anywhere on the patient's body. There was no history of any tick bites.

**Physical examination:** The patient was semi-stuporous. His temperature was  $106^{\circ}$ , pulse 128, respiration 56, and blood pressure was 100 systolic and 70 diastolic. The lungs were clear to percussion and auscultation except for some questionable transitory rales throughout both lungs. Examination of the heart revealed a gallop rhythm and a short, harsh, friction rub over the entire precordium. The remainder of the physical examination revealed no abnormalities.

**Laboratory examination:** An emergency white count was 9,400 and the differential was normal. The red count was slightly over 6,000,000. The emergency chest X-ray revealed an area of increased density, triangular in shape, situated in the lower portion of the right upper lobe, measuring approximately 4 by 4 cm. There was a rounded area of increased density in either the middle, or the upper part of the right lower lobe measuring approximately 2 cm. in diameter. Similar but smaller densities were present in the lower lobe of the left lung and at the level of the second anterior interspace on the right. A blood culture was obtained and was negative after 26 days. Blood agglutinations were ordered but the patient expired before these could be obtained.

**Course and comments:** The patient was given oxygen therapy, intravenous fluids, and penicillin. He died approximately nine hours after admission. This patient illustrates the extreme fulminating type of pulmonary tularemia which, unless recognized and treated very early, can go on even to fatality. As was mentioned by Pullen and Curtis (8) in their series of cases, the Negro race seems to be very susceptible to tularemia in a pulmonic form. At autopsy\* the patient had focal areas of necrosis in the lungs, spleen, and lymph nodes. Also present were multiple abscesses bilaterally in the lungs and a bilateral empyema. A postmortem culture of the heart blood did not grow on tryptose broth with  $\text{CO}_2$ . Lung smears with Gram's stain revealed tiny Gram negative rods. Lung cultures were done on blood cystine agar, and tryptose broth with  $\text{CO}_2$ , and no growth was obtained in nine days. A Gram stain on the pleural fluid revealed tiny Gram negative rods. Cultures of the pleural fluid on blood agar, EMB, thioglycollate, and 1% dextrose broth were all negative. Postmortem blood agglutinations were done for tularemia and brucellosis. There was no agglutination for tularemia but the brucella agglutinated to a titer of 1:640. An agglutination from the patient's wife on 21 January 1947 was positive 1:1,280 for tularemia and 1:80 for brucella. When repeated on 9 April 1947 a titer of 1:640 for tularemia and 1:80 for brucella was found. An X-ray examination of the patient's wife revealed involvement of the left lower lobe similar to that seen in the husband.

Although the lesions of this patient are typical of tularemia, a very similar type of lesion is found in the lymphgranulomatous form of brucellosis. Late in the process both the lesions of tularemia and of brucellosis may contain giant cells and frequently epithelioid cells are noted. Whereas the specific lesions of tularemia commonly involve the lungs, in brucellosis pulmonary lesions are usually represented by a non-specific secondary pneumonia.

Bacteriologically, there are several interesting and diagnostic facts. Although fluid containing the organism was cultured on media specific for brucella, no growth was obtained. This militates against a diagnosis of brucellosis. Tularemia, on the other hand, cannot be isolated from infected tissue by direct implantation on culture media, but has to be passed through an animal prior to culture. The presence at autopsy in this patient of no agglutination titer for tularemia and an agglutination titer for brucella of 1:640 is still



in keeping with a diagnosis of tularemia. The agglutinins in tularemia first appear in the blood in the second week and gradually rise to a peak during the fourth or seventh week of illness. With the short duration of this patient's illness one would not expect to find an agglutination titer for tularemia. Similarly, if the illness had been due to brucella, one would not expect to find an agglutination titer to brucella. The presence of a brucella agglutination titer of 1:640 strongly suggests an anamnestic response. The presence of a high tularemia titer in the patient's wife with pulmonary lesions strongly suggests that both had the same infection. Although the inoculation of a guinea pig would have resulted in a positive culture in cases of tularemia, it is questionable whether this procedure should ever be used. In practically every instance where the *Pasturella tularensis* has been grown in animal inoculations, some of the laboratory workers have become ill with the disease (3). Because of this, animal inoculation for tularemia has not been carried out in our laboratory.

### Case V

This patient was the 25-year-old colored wife of case four.

**Present illness:** This patient stated that she became ill around 5 January 1947 with chilly sensations, malaise and a cough which was unproductive. She had had fever since 8 January 1947 especially at night, associated with profuse night sweats. Her husband was sick at the same time with headache and cough. The two slept together and had normal relations. She ate some of the rabbit about two to three days before her illness came on, but other members of the family ate the rabbit too and did not become ill. When questioned as to how she prepared the rabbits she stated she parboiled them for a long time and then fried them. About eight other people ate the rabbit with no ill effects. Patient had nothing to do with the cleaning or preparation of the rabbits; she merely cooked them. Her husband and three brothers-in-law cleaned and prepared the rabbits for cooking. With the onset of her fever she also noticed a dull pain in the lower portion of the left chest which was accentuated by coughing. She gave no history of chills or hemoptysis. A chest X-ray was obtained on 21 January 1947 and was found to be compatible except for its lesser extent with that of her husband's. She was advised to seek hospitalization in a civilian hospital but refused. Blood agglutinations done

21 January 1947 revealed a titer for tularemia 1:1,280. She also had a positive agglutination for brucellosis of 1:80. Blood picture was normal except for a low grade anemia, normocytic type. The patient returned to her home on bed rest and gradually began to improve. The cough disappeared and she was checked subsequently one month and five months later with a chest X-ray. These were both normal. Her agglutination for tularemia remained 1:1,280. The patient seems to present presumptive evidence that she contracted her tularemia from her husband, probably from his sputum.

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## ROUND-TABLE OF COMMITTEE ON MATERNAL AND CHILD WELFARE

I. F. JONES, M. D., Chairman

Fort Smith

Eclampsia is much more easily prevented than cured. Every effort should be made by the obstetrician to note any sign or symptom that might suggest that his patient is "on that road." The most important examination that can be made to help determine this condition is the very simple one: Taking of her blood pressure. The determination of blood pressure during pregnancy, labor and puerperium has long been accepted as one of the basic essentials of adequate care of the pregnant or recent delivered woman. It is just as essential, if not more so, to take a woman's blood pressure during labor as it was during her prenatal care. Failure to do so certainly means neglect. The case listed below the cause of death was toxemia of pregnancy and two fundamental aspects of adequate care were not given: 1—Failure of the physician to take her blood pressure. 2—The physician was not on guard against a repetition of toxemia of her first pregnancy.

Toxemia of pregnancy causes twenty-six (26) per cent of the deaths of mothers during pregnancy, most of these are preventable deaths. It is up to us to be ever on the alert to protect and guard our patient against this complication or if faced with it, to take the earliest steps possible to prevent it going into that dreaded complication: Eclampsia.

### Case No. 48

The patient was a 31-year-old white para 3 with 3 living children, whose EDC was March 10. In the patient's first pregnancy she developed hypertension, albuminuria, and edema, followed by convulsions during labor. The second and third pregnancies and deliveries were stated to have been normal and uneventful, but following this the patient was advised against further pregnancies. In the current pregnancy the patient first consulted her physician when she was approximately three months pregnant. She made a total of only three prenatal visits, the last one being three months prior to delivery. At this last prenatal visit, blood pressure, urine and weight gain were within normal limits.

The patient did not make any further office visits and called her physician when she fell into labor on March 4. After a very short labor she was delivered spontaneously of a living child. The patient had no complaints following delivery, and the physician left the house without having taken the blood pressure either during labor or following delivery. One hour later he received a call from a neighbor stating that the patient was "unconscious." He returned to the home at once and found the patient in good condition and fully conscious, but shortly after his arrival the patient had a generalized convulsion and lapsed into coma. She was transferred immediately to a nearby hospital. Upon admission the patient was in coma, and the blood pressure was found to be 180/110. She was given paraldehyde by rectum, 50% glucose intravenously and 50% magnesium sulphate intravenously. This therapy was repeated three hours later, but the patient died approximately four hours after her admission to the hospital without having regained consciousness. Death occurred 11 hours postpartum.

## CANADIAN ROCKY VACATION OFFERED

BY O.S.M.A.

The Oklahoma State Medical Association announces through Dick Graham, Executive Secretary, that they will sponsor for the third time a Post-Convention Tour in conjunction with the A.M.A. Convention which is to be held this year at Chicago, June 19 to 25. They wish to extend a special invitation to the physicians and wives of this state to join them on their trip to the Canadian Rockies.

This 13-day tour is all-expense and starts from Chicago on Friday, June 25 at 1:15 p. m. at the close of the A.M.A. Convention. They will visit Jasper National Park, Columbia Icefield, Lake Louise, Banff, as well as spending one day at the Calgary Stampede before returning back to Chicago on July 7. The trip includes the choice of menu, finest of hotels with deluxe pullman accommodations as well as complete sightseeing program. All transfers and baggage handling are also included. The tour will be under the personal direction of Mr. Harry E. Kornbaum, who has conducted the two previous Oklahoma Medical Association Tours, last year to Quebec and the previous year to San Francisco and the Pacific Northwest.

This tour will be a special train and limited to











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3. Answer your doctor's questions *fully*. A previous illness may not seem to you to have any bearing on your present condition. But to your doctor it might furnish a valuable clue. Tell him complete facts. Let *him* decide what is important.
4. Follow your doctor's instructions *exactly*. If he prescribes medicine, take it *according to directions*. Remember, a larger dose than that prescribed won't cure you faster. And it might be harmful.
5. Never use medicine prescribed for somebody else, or for a previous illness of your own. However similar your symptoms may appear to you, the nature of your illness may be quite different. Only your doctor can accurately diagnose your trouble and prescribe proper treatment.
6. If your doctor advises an operation, don't put it off. With modern surgery, modern hospital care, you seldom have reason to fear an operation.
7. The new medical treatments you read about in the popular press aren't likely to be news to your doctor. If your doctor has not recommended a new treatment to you, it is probably because there are still some questions about its value, some limitations not stressed in popular reports, or some factors in your case which would make the treatment undesirable or ineffective for *you*.
8. Don't ask your doctor to advise you about members of your family whom he himself has not seen. He cannot risk giving an opinion about a patient of whose condition he has no firsthand knowledge.

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No. 1

### THE SURGICAL TREATMENT OF HYPERTENSION\*

By GEZA DE TAKATS, M.D., M.S., F.A.C.S.

The treatment of diastolic hypertension by surgical methods is by no means new: incomplete operations reported by Italian and later by French surgeons showed unimpressive results; in addition the follow-up records were poor. Our first operation undertaken on a juvenile diabetic dates back to 1932;<sup>1</sup> much improvement and extension of technique has developed since that time. From 1940 to 1946 our group has used exclusively the transdiaphragmatic approach of Smithwick and none of our previous operations done above or below the diaphragm are included in this report; since 1946 this operation has been extended to include higher dorsal segments in certain cases.

The present study is based on 250 two-stage dorsolumbar sympathectomies which were undertaken for the surgical relief of hypertension. Briefly the indications, the preoperative study, the operation and the follow-up records will be discussed. Finally the mechanism of the beneficial results will be analyzed.

#### Indications for Surgical Treatment

**Group 1.** Arbitrarily patients were classified into three groups. Cases in Group 1 belonged to the early juvenile type of hypertension. Such patients were asymptomatic, their hypertension being discovered at pre-induction or pre-employment examinations. Their age varied between 16 and 35 years. Studies of organic lesions in eyegrounds, heart, kidney and peripheral vessels were mostly negative. There was often a history of hypertension in the family. The casual blood-pressure (blood pressures taken during usual daily activity) exceeds 150/100 millimeters of mercury at least on some occasions. Their basal blood pressure (at bed rest, during sleep or under barbiturates) drops to 120/80 millimeters of mercury or even lower.

This is a highly important group since if one fully believes in the efficacy of the operation this type should respond with the best results; and indeed in this group there were only five failures in 55 patients.

The decision to refer such patients for operation is not easy for the internist since there is always the possibility that the hypertension will remain mild, labile and not produce much organic damage. However, Army experience has indicated on the basis of over 20,000 examinations made on officer candidates over the period of 20 years that they were not a good risk for the Army;<sup>2</sup> nor do they do well in civilian life. Insurance companies generally believe that if an individual's initially high blood pressure comes down to a normal level on rest or repeated examination, he becomes an acceptable risk. This is open to question, since the psychic pressor response is just another expression of exaggerated vasomotor activity such as the cold-pressor test indicates. One can of course, watch adolescent hypertensives for a while, but should their diastolic pressure stabilize itself around 100 millimeters of mercury, no time should be lost since vascular sclerosis is bound to follow.

To date 55 such patients have been operated on and their results have been so uniformly excellent that I regard this group as the most favorable and most promising in the prevention of general cardiovascular disease (Table I).

**Group 2.** This is a group of middle-aged individuals in the forties or early fifties. They have retinal sclerosis, recurrent angiospasm, an occasional retinal hemorrhage. Cerebral accidents may have occurred, with only temporary functional loss. The heart is enlarged; there is myocardial damage in the electrocardiogram. The renal function is impaired but urea clearance should not be below 50 per cent of normal. The diastolic pressure can not be lowered below 110 millimeters of mercury by any method. There is peripheral arteriosclerosis.

Such patients may show slow or rapid progression of their vascular sclerosis. If their hypertension is mostly systolic, such as a pressure of 180/100 millimeters of mercury in a 50-year-

\* Address delivered at the 71st Annual Session, Arkansas Medical Society, Little Rock, April 18, 1947. From the Department of Surgery, University of Illinois, College of Medicine, St. Luke's Hospital, and the Vascular Surgical Unit of Veterans Facility, Hines, Illinois.



old individual, one should not consider them as being surgical. Their pressure is due to an inelastic aorta and not to increased arteriolar resistance, and lowering of their systolic pressure with 20 to 30 points makes them tired, miserable, possibly dyspnoeic. I have seen such patients operated on elsewhere and can not subscribe to a surgical indication.

However, there is a group of patients whose diastolic pressure begins to rise after years of standstill and whose benign nephrosclerosis is heading toward the malignant phase. In our experience surgical treatment, while it will produce only moderate reduction in blood pressure, will avert the malignant phase and give marked symptomatic relief. One hundred and seventy-one patients belong in this group. While the reduction of blood pressure in the tabulated material is not striking, the subjective benefit and the reduction of pulse-volume are marked (Table 2). As a whole one can say that this group benefits from a surgical procedure but the individual case fares according to the pre-existing organic damage. Mortality in this group has been from cerebral or cardiac vascular accidents but not as an immediate surgical mortality; this late mortality will be analyzed separately. There has been no surgical mortality to date in any of the 250 patients.

**Group 3.** These patients have large recurrent hemorrhages or exudates in the retina; many of them have papilledema. The diastolic pressure is very high and cannot be lowered by any measure below 120 millimeters of mercury. Most of the time it is fixed at an even higher level. Congestive failure or severe angina is often present. The urine contains albumin, casts, and red cells. The urea clearance is less than 50 per cent of normal and concentrating ability of the kidney is below the specific gravity of 1.015. Cerebral accidents have been numerous. The patient is in an actual or impending state of malignant hypertension. Twenty-four patients have been operated on in this group.

It is necessary to dwell upon this series in more detail, since some surgeons feel that one should not deny operation to such patients. While we have had no surgical mortality in this series, we have not seen any effect on the course of the disease. In addition to the frankly malignant hypertension with its classical symptoms, we have excluded from operation a "pre-malignant" group in whom papilledema and latent renal failure are not yet present but who are in a state of continuous angiospasm, a forerunner of malignancy. This continuous angio-

spasm can be detected by the retinal picture, by the inability to lower the diastolic pressure by any depressor mechanism, and by the inability to raise the diastolic pressure by ice water, carbon dioxide, or breath-holding. Table 3 is shown to illustrate our inability to do any good in this group. The average pre- and post-operative blood pressures show the lack of any reduction.

This does not mean that a patient with a burned-out inactive pyelonephritis with hypertension, who develops a temporary exacerbation with papilledema should be included in this group. Again and again one sees such papilledemas recede spontaneously and I rather suspect that these are the patients who do well after surgery. They are not included, however, and do not show the criteria of our third malignant or premalignant phase. Also children, with a hypoplastic kidney, may occasionally benefit, if nephrectomy is combined with bilateral splanchnic section.

Other hypertensives, not belonging to either of these groups, should be briefly mentioned. Chronic glomerulonephritis, between recurrences, is mostly on the brink of renal failure and we have studied but not yet operated on any member of this group. It is likely, however, that children or adolescents after their initial inactivation may be suitable candidates. Chronic pyelonephritis in the inactive stage responds admirably, as does the rheumatic, the eclamptic and toxemic kidney. We have operated on one coarctation of the aorta and one polycystic kidney; the former is doing well; in the latter, a 45-year-old woman, the blood pressure has not been reduced and while renal function is still adequate, her ultimate prognosis seems poor.

### Renal Versus Neurogenic Hypertension

It has been generally stated in the literature that the so-called neurogenic type of hypertension is the ideal case for splanchnic nerve section. In fact, an effort has been made to differentiate the neurogenic from the renal type by recording the patient's response to high spinal, to paravertebral or to caudal anesthesia. It does not seem logical to expect any help from such procedures. All surgeons employing high spinal anesthesia are familiar with the profound drop of blood pressure which elderly arteriosclerotic individuals experience after these methods. While vasoconstriction below the upper level of anesthesia is abolished, the motor paralysis and the severe reduction of venous return decreases cardiac output and certainly no prediction can be made on this basis regarding the effect of



sympathectomy. Another point is that even obvious, neurogenic impulses which are produced by emotion, by oxygen want, by excess of carbon dioxide, can not always be abolished by splanchnic nerve section, adrenal or renal denervation. There is more and more experimental and clinical evidence that neurogenic stimuli activate the pituitary gland, probably both the posterior and anterior part. Obviously such patients should be diagnosed preoperatively. At present our group is engaged in trying to eliminate such a group from any surgical procedure, since our experience with this so-called neurogenic group has been unfavorable. We have published elsewhere<sup>4</sup> case reports of young hypertensives lacking organic vascular damage whose response to splanchnic nerve section was negligible. On the other hand, we have become more and more impressed with the effect of the operation on renal types of hypertension provided of course that the original renal damage has stopped operating or that the renal lesion is at a standstill.

### The Preoperative Study

From the foregoing it is obvious that a simple but thorough preoperative study is essential, since it not only establishes the indication for operation but may aid in predicting the expected result. Table IV shows our present work-up, which has undergone several modifications in the course of time. The role of the ophthalmologist and internist is most important and no decision is reached without them. Of the cold-pressor test it must be said that unless the patient is in a basal state the response may seem to be slight. It is likely that some hypertensives are never in a basal state unless heavily sedated; their basal metabolic rate is frequently elevated but drops below normal after the operation. The depressor test of hyperventilation combined with carotid sinus pressure has been employed for only a short time.<sup>5</sup> It gives good orientation as to what might be expected from sodium amytal but the latter often shows lower figures. The breath-holding test is simple, the systolic and diastolic pressures being determined on separate trials. It runs parallel with the carbon dioxide (7%) inhalations which we have recently abandoned. The intravenous pyelogram may have to be supplemented with a retrograde pyelogram if some deformity is not clearly defined.

### The Technic of the Operation

This was recently described in detail;<sup>6</sup> for our purposes here it suffices to say that it consists of resection of the twelfth and the medial two-thirds of the eleventh rib, first on the right and

two weeks later on the left side. The pleura is carefully identified on the medial crus of the diaphragm and the muscle fibers are cut between guy-sutures; they can be resutured. The major splanchnic nerve is cut between the mid-thoracic (6-7th dorsal) level and its entrance into the coeliac ganglion. The sympathetic chain is severed between the ninth dorsal and below the second lumbar ganglia. The kidney is exposed and also the adrenal; a small cortical wedge is taken out of the kidney for histologic study on the right side. The operation lasts from one and a half to two hours greatly facilitated by good anesthesia. Should the pleura tear, which may be unavoidable, adequate positive pressure must be given to keep the lung inflated, and the residual air is aspirated by suction through a catheter. Lately, the eleventh or the tenth or even the eighth rib have been resected, and a transpleural approach has been employed. Whether this really improves end results has not yet been determined; such operations, however, delay postoperative convalescence.

### After Treatment

The convalescence of most patients is remarkably smooth; only if a pneumothorax or an atelectasis results do they have some dyspnea. They are allowed to be out of bed in 24 hours. Intercostal neuralgia occurs in some patients whether the eleventh or twelfth nerve is sectioned or not. Removal of the posterior root ganglion may be done in sensitive patients but if more than one nerve is cut, the motor and sensory loss may be disturbing.

Postural hypotension and postural dyspnea are more marked in some than in others. In middle-aged patients with cerebro-vascular damage it may be advisable not to cut one lumbar chain so that the fall in pressure is not as great in the erect position. However, the whole syndrome disappears in four to six weeks. Its existence is the very proof of adequate denervation.

Sweating is abolished over the lower trunk and lower extremities. Postoperative sweating tests indicate the area of denervation. Some patients sweat more over the chest and the upper extremities. A few complain of Raynaud's phenomena in the hands which may have been present prior to the operation but has become accentuated.

The average hospital stay of the 250 patients has been 25 days from the time of the first operation. A one-stage operation would obviously be desirable but the extent of this type of denervation would not permit it. In fact,



in some older patients, or if a large pneumothorax or pleural effusion developed, 6 to 8 weeks should elapse between the two stages.

### Follow-Up

Each patient is heard from either by personal examination or through a questionnaire every three months for the first year, every six months for the second year, and once a year after that (Table V). Outside of the actual readings of blood pressure in the horizontal, sitting and vertical positions, and the concentrating ability of the kidney which are obtained in every case, an effort has been made to repeat some of the preoperative observations such as eyeground examination, basal metabolism, electrocardiogram. A few of the significant findings are summarized.

**A. Eyegrounds.** The ophthalmologist not only grades the eyegrounds, but fundus photographs are obtained which may show improvement of the patient. The regression of papilledema is striking in the malignant group but it has no prognostic value since the patient still dies within the first year. The papilledema may recede even if systemic blood pressure is uninfluenced by the operation. We shall return to this phenomenon in the analysis of the effects of the operation. Occasionally the retinal hemorrhages may be improved by the administration of ascorbic acid and rutin. Then again the diabetic hypertensive has a type of venous thrombosis with secondary hemorrhage which usually accompanies the diabetic neuropathy and which seems to have little relation to the grade of hypertension.

Only one patient of the whole group developed a localized blind spot following splanchnicectomy. One other had an isolated internal rectus palsy, which had occurred once prior to operation. These were interpreted as being due to a focal cerebral ischemia. The eyegrounds showed no changes compared to the preoperative status. One patient developed a temporary hemiplegia shortly after operation but a number of hemiplegias with some residual damage have been operated on with no additional difficulty.

**B. The two-meter chest films.** The cardiothoracic diameter, the size and shape of the aorta were noted before and after the operation. The decrease in the size of the heart may occur so shortly after operation that it must be due to a decrease of intracardiac tension, in other words to a reduction of cardiac dilatation even if blood pressure is not significantly lowered. The athlete's heart remains enlarged

after the initial physical strain. Cardiac hypertrophy of course remains unchanged in the hypertensive as well.

**C. The electrocardiogram.** In a previous communication<sup>6</sup> my co-workers and I have demonstrated electrocardiograms showing marked improvement after operation. Some of these preoperative electrocardiographic changes seemed irreversible; others have shown no improvement. It would seem that there is as yet no fixed criterion whereby the cardiologist could differentiate myocardial damage from ventricular strain due to increased intracardiac tension.

**D. Other observations.** Epinephrine sensitivity is lessened, insulin sensitivity is increased after splanchnic nerve section. The practical value of these observations is not clear and they do not yet add much information toward selecting the proper case for operation.

Circulation time from ankle to tongue is so greatly increased after splanchnic nerve section in the erect position that it points to a pooling of blood on the venous side in the denervated areas with a slowing of venous return and a decrease in cardiac strain.

### The Renal Biopsies

For many years a cortical biopsy has been taken of one kidney, occasionally of both. We have confirmed the observations of Castleman and Smithwick<sup>7</sup> that clinical hypertension and its grades of severity were ahead of the microscopic findings. Hypertension seemed to precede renal vascular disease, which is secondary to it. In grading 30 of our biopsies from 0 to 4 it was found that 60 per cent of the biopsies were classified as having minimal vascular changes in spite of being taken from patients having had hypertension over prolonged periods of time. A differential diagnosis between inflammatory and degenerative vascular changes has also been attempted, based on the work of Weiss and Parker.<sup>8</sup> In the late cases the admixture of these lesions may make the etiologic diagnosis difficult. Obviously many so-called "essential" hypertensions have had their origin in a chronic, atrophic, pyelonephritis, and yet these patients, just as those suffering from rheumatic or toxemic renal lesions seemed to respond unusually well to splanchnic section.

### Results

As shown in the tabulated results, the grade 3 hypertensives did poorly and all died within a year and a half. This leaves for analysis 226 patients of whom 200 patients could be traced for periods of one to six years.



There is no patient in this series who did not report subjective improvement in that headaches, palpitation or dizziness have improved. As far as lowering of blood pressure is concerned, Group 1 ended up with an average of 140/80 millimeters of mercury, truly an excellent result. Group 2 registers an average of 160/110 millimeters of blood pressure. This blood pressure seems stable and has not progressed in a single case to a malignant phase. Oscillometric curves taken on such patients reveal that the vascular tree is subjected to less pounding than before, that the sitting and standing position still drain blood from the brain and heart after many years and that two-meter chest films and electrocardiograms show a decrease of strain after sympathectomy. Such results have now lasted for more than five years.

### Analysis of Results

The emphasis in the past has been on increase of renal blood-flow following splanchnic nerve section. This can not be substantiated if one is thinking in terms of resting, basal renal blood-flow. But as Homer Smith<sup>9</sup> has shown, the upright position even in the normal individual constricts his renal arterioles—in a diseased kidney this is more significant. After splanchnic section the postural vasoconstriction does not take place in the kidney, the renal blood-flow is stable, the vascular bed is not subjected to fluctuations. Other causes for such fluctuation are chill, emotional stimuli, infectious agents. Renal denervation then is a protective mechanism for the diseased kidney. Renal denervation seems to protect the renal cortex from blood being diverted from it.<sup>10</sup> Adrenal denervation is beneficial in that it decreases reflex nervous irritability. One can test for this in many ways, perhaps most simply by testing the knee-jerks before and after splanchnic nerve section. It seems likely that "inner nervous tension," of which many hypertensives complain, is due to the fact that the renal pressor substance sensitizes the bloodvessels to adrenalin. Thus the ischemic kidney itself is less capable of acting on the bloodvessels when the secretion of epinephrine is decreased.

The role of adrenal cortex has not yet been clarified in human hypertension. It has become increasingly clear to us however, during the last year, that whatever the inciting mechanism of hypertension may be in the individual case, the adrenal cortex responds with increased activity as part of the general adaptation syndrome to prolonged stress.<sup>11</sup> It may thus be, that in certain patients, partial adrenal resection as has

been proposed in the past may have a place in the surgery of hypertension.

What has impressed us the most is the redistribution of the circulating blood following splanchnicectomy. Since the splanchnics are one of the most effective anti-gravity mechanisms, their loss means a pooling of blood below the umbilicus. Even although the early postural hypotension of the operated patients does not persist, the pulse volume of such patients is noticeably smaller in the erect position, years after the operation. It is as if the patient would have an internal venisection each time he stands up, since the large blood depots in the liver, spleen, kidney, gastrointestinal tract and the lower extremities take up a considerable amount of blood and do not respond with constriction as normally. The loss of this mechanism calls for an increase in cardiac output and it is for this reason that the elderly, arteriosclerotic hypertensive does not tolerate the operation so well or may even become dyspneic for a period. Such patients are recognized by a high pulse pressure, a rigid aorta, a comparatively low diastolic pressure (100-110 mm. Hg.) and are not suitable subjects for operation.

### Summary

The surgical treatment of hypertension has been discussed on the basis of 250 operated patients. The early, juvenile type of hypertension has given excellent results. A second group, harboring considerable organic damage, is still regarded as operable except that a restoration to normal levels can not be expected. Such patients benefit from a stabilization of their blood pressure, from an arrest of the process tending toward a malignant phase, and from an alleviation of symptoms due to the pounding of their vascular tree. The third group consists of a premalignant and a malignant phase, with continuous, fixed angiospasm and permeability changes in the bloodvessels. This group is not regarded suitable for operation. So far no single or combined method of treatment can be recognized which would give rigidly selected hypertensives as much benefit as the transdiaphragmatic type of splanchnic nerve section combined with dorsolumbar sympathectomy.

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- a. Concentration test: routine
  - b. Dilution test: 1,500 cc. in 15 minutes. Collect specimens every 30 minutes for 4 hours. Each specimen collected separately and run by laboratory for volume and specific gravity of each. Laboratory to be so instructed.
4. Hold breakfast in a.m. for
    - a. Blood chemistry: NPN, urea nitrogen, cholesterol and sugar
    - b. Basal metabolism.
  5. Electrocardiogram.
  6. Fifteen minute PSP test intravenously.
  7. Consultation with ophthalmologist (eyegrounds).
- C. Second day
1. Urea clearance.
  2. Hourly blood pressures for 6 hours beginning at 6 a. m. **Absolute bed rest.**
  3. Cold pressor test in afternoon.
  4. Hyperventilation and carotid sinus test
    - a. Ventilate for 20 seconds and press on one carotid bulb.
  5. Breath-holding test
    - a. Hold breath for 30 seconds.
  6. Sodium amytal test
    - a. Sodium amytal grains 3 every hour for 3 hours
    - b. Check blood pressure every one-half hour for 6 hours.
- D. Third day
1. Intravenous pyelogram in the morning.
  2. 2-meter chest plate in the morning.
  3. Consultation with internist.

TABLE I  
THE SURGICAL TREATMENT OF HYPERTENSION

Group 1 Summary of Results, 1940-1945			
	Max.	Min.	Avg.
Age in years .....	43	15	27.3
Preoperative blood pressure in mm. of Hg. ....	178/120	150/100	160/110
Postoperative blood pressure in mm. of Hg. ....	154/80	120/80	144/80

TABLE II  
THE SURGICAL TREATMENT OF HYPERTENSION

Group 2 Summary of Results, 1940-1945			
	Max.	Min.	Avg.
Age in years .....	55	17	37.2
Preoperative blood pressure in mm. of Hg. ....	256/140	160/118	207/128
Postoperative blood pressure in mm. of Hg. ....	236/124	120/80	160/110

TABLE III  
THE SURGICAL TREATMENT OF HYPERTENSION

Group 3 Summary of Results, 1940-1945			
	Max.	Min.	Avg.
Age in years .....	52	7	24.3
Preoperative blood pressure in mm. of Hg. ....	300/160	200/150	234/158
Postoperative blood pressure in mm. of Hg. ....	240/145	180/150	210/153

TABLE IV  
THREE-DAY WORK-UP FOR HYPERTENSIVE PATIENTS

- A. Patient should arrive before 5 p.m.
- B. Night of admission and first day
  1. Complete blood count, hemoglobin, sedimentation rate and hematocrit.
  2. Kahn and blood typing.
  3. Olmstead test (begin this evening)

TABLE V  
FOLLOW-UP QUESTIONNAIRE FOR PATIENTS  
OPERATED ON FOR HYPERTENSION

1. Have the following symptoms been

	relieved	improved	worse?
fatigue .....			
nervousness .....			
dizziness .....			
palpitation .....			
breathlessness .....			
urinary frequency			

2. What is your blood pressure after five minutes in the following positions:  
Horizontal..... Sitting..... Standing.....
3. What is the specific gravity of the urine in the morning? Do not drink any fluid after 6 p. m. the night before. ....
4. Are you working? Yes No  
Full time..... Part time.....  
If not working, is this due to your state of health?



## SOLITARY BONE CYST OF THE OS CALCIS

(A FORM OF OSTEITIS FIBROSA)\*

JOHN M. HUNDLEY, M. D.

University of Tennessee College of Medicine  
Former Lt. Comdr. (MC) USN  
Chief of Orthopedic Surgery  
U. S. Naval Hospital  
Memphis, Tennessee

The solitary bone cyst, a form of osteitis fibrosa cystica, is usually found in the metaphyseal region of the long bones during adolescence. The diffuse and local types of bone cysts are entirely separate clinical entities, although the roentgenographic appearance may be identical. In the generalized form the disease is due to hyperparathyroidism. The diagnosis can be confirmed by calcium-phosphorus imbalance. This form of the disease is not an orthopedic problem except for its various complications, e. g., fractures and deformities.

The solitary bone cyst has a wholly different origin and is a distinct orthopedic problem. Geschickter states that there is a relationship at the age, and in the location, in which the tumors occur to an unossified epiphyseal line. The pathologic process is related to newly formed bone derived from cartilage. Early bone cysts contain giant cells which by overactivity cause the osteolytic process. It is this osteolysis that produces the solitary cyst. These giant cells normally aid in resorption of calcified cartilage in the transition from cartilage to new bone in the metaphyseal region. The stimulation that causes these cells to become destructive may be due to trauma or abnormalities of metabolism.<sup>1</sup>

The common sites of such solitary cysts are the proximal portions of the femur, the humerus, and the tibia. Cases involving the frontal bone, mandible, patella, etc., have been reported. Illingworth and Dick state that no bone is immune.<sup>2</sup>

This case is presented because of the very unusual, if not rare, location—the os calcis. A review of the literature from 1879 reveals that only four cases have been reported: one by McLochlin,<sup>3</sup> one by Jones,<sup>4</sup> one by Sabel,<sup>5</sup> and one by Cordis.<sup>6</sup>

The patient, J. S., Pfc., USMCR, was admitted in January of 1945, following his evacuation for multiple shrapnel wounds of the lower extremities.

Although he had fractures of the metatarsals, his chief complaint was pain in the heel.

X-ray examination of 1/9/45 of the left tibia, fibula and foot showed no evidence of bone or joint pathology. There were a few small foreign bodies of metallic density in the soft tissue posterior and medial to the middle third of the tibia. X-ray examination of the right foot showed numerous metallic fragments of varying size in the soft tissue both ventrally and dorsally in the region of the phalanges and metatarsals. There was minimal destruction of the proximal lateral articular aspect of the second middle phalanx. There were fractures of the third and fourth distal phalanges with fragmentation of the distal phalanx. There was a large area of rarefaction in the inferior central aspect of the os calcis which measured three cm. in diameter on the film. The cortex inferior to this area was intact. There was no evidence of condensation of bone about the margin of this area of rarefaction, nor was there periosteal proliferation. There was no evidence of trabeculation or loculation in this area. This was compatible with the diagnosis of bone cyst. There were a few metallic fragments in the soft tissue lateral to the distal third of the tibia.

On 22 January, 1945, under spinal anesthesia a window was made in the thin cortical bone over the cyst of the os calcis, and the cystic area was evacuated of the classical fluid present in a solitary bone cyst. The lining membrane was completely removed. Iliac bone chips were placed in the cavity and the wounds closed. The postoperative course was entirely uneventful.

The pathologic examination revealed a typical solitary bone cyst.

On 19 February, 1945, X-ray examination of the right foot showed the area of rarefaction in the inferior central aspect of the os calcis to have fairly homogenous increased density with no definite line of demarcation between the increased density and the borders of the previously noted cystic area. The cortex on the inferior aspect of the os calcis was intact. There was no essential change in the fractures of the third and fourth distal phalanges.

On 28 March, 1945, X-ray examination revealed evidence of healing and the density to be more homogenous through the area of the bone cyst.

As in the usual case this patient was not seen because of his bone cyst, but because of an unrelated injury. Frequently the patient comes

\* The opinions or assertions contained in this article are the private ones of the author and are not to be construed as official or reflecting the views of the Navy Department or the Naval Service at large.



under observation because of pathologic fracture of the involved bone. The fracture through the cystic area may stimulate new bone formation, but infrequently results in a cure by the time the fracture has healed. The idea that fracture through a cyst results in cure is erroneous. Only 18 per cent of the cysts through which fracture occurs resolve as a result of the injury.<sup>7</sup> In those cases uncomplicated by fracture the benign chronic process should be observed and if fracture is imminent, or if the process is painful, surgical excision should be done. A window is made over the cyst, the walls curetted and the defect filled with bone transplants obtained from adjacent bone or from the iliac crest. Such operative intervention results in uniformly excellent results.

The postoperative care consists of three months' non-weight bearing, during which time active physiotherapy is carried out. In all of the cases operated on at this activity for solitary bone cysts, the patient was restored to full military duties by the end of the fourth month.

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## HISTORY OF THE PIONEER DOCTORS OF PULASKI COUNTY\*

DR. RODERICK LATHROP DODGE  
(1808-1893)

Doctor, missionary, banker, druggist, Mason and utility man, Roderick Lathrop Dodge was born September 7, 1808, in Hartland, Vt., and grew to manhood in that place.

Graduating from the Medical School of Dartmouth College in 1834 and completing his studies at the Philadelphia Medical College, he went to the Indian Territory in 1835 as a missionary physician to work among the Indians under the patronage of the American Board of Commissioners for Foreign Missions. After spending several years ministering to the Creeks and Cherokees, the young doctor entered the United States Army as a surgeon at Forts Gibson and Coffee, riding 2,000 miles on horseback from Danville, Pa., to Fort Gibson.

His first wife was Emeline Bradshaw, a native of Montpelier, Vt., who accompanied him west. They were the parents of two children, Ellen E., who married the Rev. William Sample of Fort Smith, and Dr. Samuel Delano Dodge, who followed his father's example and became a physician, practicing in Little Rock, Arkansas.

Dr. Dodge came to Little Rock in 1842, where he practiced his profession and later entered the drug business, choosing East Markham street as the location for his store and office. In later years he was engaged in private banking business and at one time was the only banker in town. Dr. Dodge remained in the drug business for more than 30 years, selling out to the C. J. Lincoln Company.

Some time following his first wife's death in 1845, Dr. Dodge returned to Vermont and married her sister, Eliza. Eight children were born to this union: George E. Dodge, who married Madalein Perdue; Mary S. Dodge, who became the wife of Col. William G. Whipple, who was a mayor of Little Rock; Anna E. Dodge, who married Fred S. Staff, an attorney of Franklin, Ind.; Lucy J. Dodge, who became the wife of Daniel Lewis Gray, Pulaski County planter; Emma J. Dodge, whose first husband was Charles E. Kidder; Minnie Miriam Dodge, who became the wife of Gen. Benjamin William Green; Roderick Dodge, who died while a young man; and Fannie Ashley Dodge, who died in infancy.



\* Compiled by Mrs. J. P. Runyan. Presented by the Biography Committee, Woman's Auxiliary to the Arkansas Medical Society: Mrs. Chas. W. Dixon, Mrs. C. W. Garrison.



Always interesting in the upbuilding of the town, Dr. Dodge was one of the originators of the Little Rock Gas Company. He was never a politician, but was called upon by his friends to serve as alderman and mayor. He was for many years grand treasurer of all Masonic grand bodies, but resigned all offices he was holding in 1878 on account of ill health. By a vote of the Grand Lodge he was made a permanent member. Dr. Dodge was treasurer of St. John's College for several years, and was a ruling elder in the First Presbyterian church for over 40 years.

He accumulated much property, which he divided among his children prior to his death on March 21, 1893. Much of this property is still in possession of his heirs and descendants. The Dodge home, which at one time housed the first territorial governor of Arkansas and his family, was located on the present site of the Woman's City Club, the southeast corner of Fourth and Scott streets.

A frequent visitor in the home was the Rev. Cephas Washburn, who established the Dwight Mission station among the Cherokee Indians. The Rev. Mr. Washburn's artist son, Edward Payson Washburn, lived at Dr. Dodge's home for many years and painted the famous picture, "The Arkansas Traveler." It is said that the features of one of the men on the canvas is that of a Dodge. Edward Washburn painted excellent portraits of Dr. and Mrs. Dodge, which are owned by a granddaughter, Mrs. Tullis C. Walker (Grace Dodge) of New York City.

Dr. Dodge lived in Little Rock for 51 years. His grave and those of his two wives and his mother, Susanna Dodge, who died in Little Rock in 1859 at the age of 89, are in Mount Holly Cemetery. His second wife died in 1893, and he followed her in death a few weeks later.

Dr. Dodge's grandchildren include Gen. William R. Sample, United States Army, retired; Mrs. Alice Sample Saunders of California; Dr. George E. Dodge, Jr., of Pasadena, Calif.; Mrs. Tullis C. Walker of New York City; William Gray, head of the History Department at Smith College, Northampton, Mass.; Clifton Gray of Denver, Colo.; Daniel L. Gray of Little Rock; the late Durand Whipple of Little Rock; the late Mrs. Edith Kidder Russell of Little Rock; and Mrs. Robert Chauncey Warren of Pine Bluff, the former Alice Dodge Green.

Great-grandchildren include: Osborn D. Walker of Little Rock; Mrs. Charles S. McCain of New York City, the former Frances Walker; Frances Mecca Gray, Gloria Gray and William

## PERSONAL AND NEWS ITEMS

S. A. Drennen, Stuttgart, has been elected president of the Arkansas Wildlife Federation.

Gardner H. Landers, who has been a resident at Gill Memorial Eye, Ear, Nose and Throat Hospital, Roanoke, Virginia, has located for practice at 200 West Elm Street, El Dorado.

D. W. Goldstein, Marlin B. Hoge and W. R. Brooksher, Fort Smith, conducted a diagnostic cancer clinic at Alma April 26th.

Fred Hames, Pine Bluff, and Henry G. Hollenberg, Little Rock, recently conducted a diagnostic cancer clinic in Warren.

James T. Rhyne has located in Pine Bluff where he will be Associated in the Morris-Stern-Rhyne Clinic at 600 West Sixth Avenue.

Winners in the golf tournament held during the 1948 annual session were: Gordon P. Oates, the H. King Wade trophy and other prize winners: H. Clay Chenault, R. E. McLochlin, H. F. Gray, H. King Wade, Jr., Fred Gordy and Edwin F. Gray. Prizes were donated by Archer Drug Company, Meyer Brothers, McKesson-Lincoln, Wm. T. Stover Co., and Dick X-ray Company.

The following officers were elected by the University of Arkansas School of Medicine Alumni Association at a luncheon meeting April 16th: President, Raymond Cook; vice-president, John M. Smith, and Gordon P. Oates, secretary-treasurer.

Gray of Little Rock; Mrs. Ernest Hoeldtke of Holley, N. Y., the former Cathryn Gray; Henrietta, Lucy and Marion Gray of Northampton, Mass.; Clifton and Harrison Gray of Denver; Emmett and Dodge Whipple of Kentucky; David Kidder Russell of Little Rock; Mrs. John Nicholas Bookhart of Jackson, Miss., the former Mary Alice Warren; Mrs. Joe C. Hardin of Grady, the former Miriam Dodge Warren; and Mrs. Harry P. Correll of Pine Bluff, the former Frances Ruth Warren.

Great-great-grandchildren include William and Charles S. McCain, Jr., and Grace Dodge McCain of New York City; Rebecca Grace Walker of Little Rock; Ernest Hoeldtke, Jr., and Robert Hoeldtke of Holley, N. Y.; Robert Chauncey Warren, 2nd, of Pine Bluff; Virginia Alice Bookhart of Jackson, Miss.; and Miriam and Phillip Correll of Pine Bluff.



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OF THE

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EDITORIAL

THE BROOKINGS REPORT

At the invitation of Sen. H. Alexander Smith, chairman of the sub-committee on health of the Senate Committee on Labor and Public Welfare, the Brookings Institution of Washington, D. C., has published a report which strongly opposes a national system of compulsory health insurance. This is a disinterested organization which has given the matter careful and studious consideration. The conclusions of this lay organization are certainly not open to any charge of prejudice. Their conclusions are of great interest to all physicians.

"1. Probably no great nation in the world has among its white population better health than prevails in the United States. A few small homogeneous countries, such as New Zealand with respect to its white population, are slightly ahead of the United States as a whole, but certain states of the United States with larger populations equal them.

"2. It is apparent that the United States under its voluntary system of medical care has made greater progress in the application of medical and sanitary science than any other

country. This progress is now reflected in low mortality and morbidity rates of infectious diseases and in increased life expectancy. There is every reason to believe that these trends will continue unabated under our present system of medical care.

"3. The nonwhites in the United States have materially poorer health than the whites, but the evidence does not indicate that this condition is primarily or even mainly due to inadequacy of medical care.

"4. The advances in health among both the whites and the nonwhites that have been made in the United States in the past four decades do not suggest basic defects in the American system.

"5. Although the statistics resulting from the administration of the Selective Service Act—the so-called draft statistics—have been widely used to show bad health among the American people and the need for revolutionary changes in arrangements for medical care of individuals, they are unreliable as a measure of the health of the Nation and cannot be used to show the extent of the medical needs of the country as a whole.

"6. Present medical care in the United States compares favorably with that which existed in other leading nations prior to the Second World War.

"7. The conditions in extremely poor rural areas that lack the resources to support adequate public services, such as health work, education, and highways cannot be satisfactorily solved by subsidies. This problem calls for a radically different approach, either bringing in new or improved economic activities or getting the people to more favorable and administratively less expensive areas. This condition has been accentuated by the emigration of youth from these areas to urban communities.

"8. The United States has some individuals and families not possessed of the resources to enable them to pay for adequate medical care. In the future, as in the past, provision must be made for them through public funds or philanthropy. The evidence suggests that many of them are elderly, impaired, or underendowed or are widows or deserted women or their dependents. It is doubtful if they could be effectively covered by compulsory insurance because they would lack the means to attain and maintain an insured status. The large majority of American families have the resources to pay for adequate medical care if they elect to give it a high priority among the several objects of expendi-



ture. The issue is not whether they can afford medical care but whether they should be compelled by law to pool their risks and to give payment for medical care a top priority. The major alternative for people with ability to pay is to leave them free to determine for themselves what medical care they desire and whether they will pool their risks through voluntary arrangements.

"9. Compulsory health insurance would necessitate a high degree of governmental regulation and control over the personnel and the agencies engaged in providing medical care. This field of regulation and control would be far more difficult than any other large field previously entered by the government, and past experience with governmental regulations and control in the United States causes doubt as to whether it encourages initiative and development.

"10. The problem of eliminating politics from government administration is extremely difficult. It does not seem probable that politics could be eliminated from medical care supplied under a governmental system.

"11. Compulsory insurance would inject the government into the relationship between practitioner and patient. A real danger exists that government actions would impair that relationship and hence the quality of medical care.

"12. The administration of compulsory insurance would require thousands of government employees for accounting, auditing, and inspection and investigation.

"13. The cost of medical care presumably would increase because of (a) administrative expenses; (b) the tendency to insured persons to make unnecessary and often unreasonable demands upon the medical care services; and (c) the tendency of some practitioners and agencies to take advantage of the system for their own financial advantage.

"14. The adoption of compulsory insurance would not immediately make available adequate service for all, because there are not at present the facilities nor a sufficient number of trained and experienced physicians, dentists, and nurses to meet the demand which would result from compulsory insurance.

"15. Proposals for compulsory insurance provide for payment of practitioners under one or all of three methods: (a) fee for service, (b) per capita, or (c) salary. Use of the fee-for-service device represents the minimum degree of socialization, but it is administratively difficult. Administrative difficulties would probably re-

sult in the adoption of the per capita system which represents a higher degree of socialization or even in the salary system which represents practically complete socialization. It seems questionable whether a country which once embarks on compulsory insurance can turn back but must attempt to remedy defects by more complete government control and administration.

### Recommendations

"1. For the present, in our judgment, the national government would be wise to leave to the individual states the question of whether compulsory health insurance is to be adopted or whether the provision of professional services is to be left in the realm of free enterprise. It seems highly probable that in many communities the intelligent cooperation of consumers and practitioners will develop satisfactory arrangements that remain subject to their own control without national government administration. It seems highly improbable that this experimentation—possible under our federal form of government—will ultimately develop a single pattern that is applicable to all sections of the country and is desired by a large majority of the people. If such a pattern should develop, it will doubtless then be adopted with a great degree of unanimity. If compulsory insurance should be adopted now by a narrow vote in the Congress, thousands of persons who are opposed to it would start hostile to the whole undertaking.

"2. For the time being the national government and many of the state governments may well devote their resources and energies to:

"(a) Research and developments in the fields of public health;

"(b) Health education at the school level;

"(c) Teaching of preventive medicine;

"(d) Assisting in the acquisition of physical facilities and training of personnel;

"(e) Providing systematic care for the indigent and the medically indigent. In some states careful surveys of existing conditions will be required to furnish the basis for developing a comprehensive and coordinated program.

"3. From the standpoint of public relations, governments might be well advised to leave adult educational campaigns for the control and prevention of disease to the national, state, and local voluntary organizations which have been able to enlist the active cooperation of leading laymen in most sections of the country. It must be remembered that good health is not exclusively a matter of medical care; it also impinges upon causative factors that are non-



medical, such as food, shelter, vice and crime, transportation, and industry. Its maintenance depends also upon the intelligence, interest, and cooperation of individuals, families, and local communities.

"These recommendations are not widely at variance with those of the majority of the Committee on the Costs of Medical Care, arrived at in 1932 after a comprehensive study.

"The years since 1932 have witnessed—

"1. A great growth in voluntary insurance both for hospitalization and for medical services.

"2. State experimentation with compulsory health insurance in Rhode Island and California.

"3. A growing willingness on the part of practitioners to cooperate in the development of prepayment plans and other devices to enable patients who so desire to regularize their payments for medical care.

"4. A profound change in the amount and distribution of the earnings of the American people. This change greatly reduces the number who cannot afford adequate medical care if they desire to purchase it.

"The experience of the United States since 1932 seems to have demonstrated the wisdom of these recommendations of the majority of the members of the Committee on the Costs of Medical Care. It would seem unwise at this time to substitute for these developments a system of compulsory health insurance by national law which would have the unfortunate tendency to free policies and eventually retard medical progress."

#### OUR EXECUTIVE SECRETARY

The Society took a step forward May 10th when Mr. Sid Wrightsman, Jr., selected as executive secretary, reported for duty. Mr. Wrightsman was born in Venice, California, September 11, 1921, was educated in the public schools of California and Washington and obtained his degree in journalism from the University of Texas in June, 1947, after an interval of three years spent in the Army Air Forces. He was married to Miss Charlotte Chambers, the daughter of a physician in Iola, Kansas, November 1, 1947. Prior to his present duties, Mr. Wrightsman had been employed in newspaper work in Texas and more recently was engaged in public relations work with the Malaria Control Division of the Arkansas State Board of Health. He brings to the position of executive secretary a happy and pleasing personality, enthusiasm and the sincere desire to accomplish great things with and for the medical profession of Arkansas.

#### PROCEEDINGS OF SOCIETIES

The Lawrence County Medical Society held its annual fish fry at Black Rock May 11th. Speakers on the scientific program were: J. C. Land, Walnut Ridge, and C. A. Churchill and J. J. Monfort, Batesville.

Chas. D. Tibbels, Secretary.

A. S. Koenig addressed the Sebastian County Medical Society May 11th on "The Cystological Examination of Smears—Papanicolaou Method."

J. K. Thompson, Secretary.

The First Councilor District Medical Society met at Rector May 12th for the following program: "Surgery of Femoral Hernia," Gilbert O. Dean; "Obstetrical Hazards," E. T. Ellison, and "Diagnosis of Fevers of Obscure Origin," S. T. W. Cull, all speakers of Little Rock. A dinner followed the scientific session. The Society will meet at Jonesboro in October.

J. H. McCurry, Secretary.

#### RANDOM THOUGHTS OF THE SECRETARY

April 26th. This afternoon with Goldstein and Marlin Hoge to conduct a diagnostic cancer clinic in Alma, the comedy relief being afforded by the affable J. R. Crigler who recounts with great glee the tales of conflicts between the "crossroads" doctor and the "city" specialist, the best tale being that of the country man who proclaimed loud that he was going to Fort Smith, to the tallest building and to the doctor who had an office on the top floor as the man best qualified to treat his ailment and it would seem that many times in some such manner is the physician selected.

May 2nd. Gathered at the Foltz's tonight where Chamberlain, newly returned from California and points in the scenic Southwest has many a marvel to relate, but none so astounding as his apparent preference for "Trader Vic's" over "The Top of the Mark."

May 6th. Flying over the clouds affording the opportunity to make what should be marvelous photographs this morning and then with the Cancer Commission and homeward for a pleasant sort of a day.

May 12th. By Braniff this noon with Wrightsman to Memphis and then with the Paul Lutterloh's, only slightly slower, to Jonesboro, and thence on with the president and wife to the First District meeting in Rector, a better attended meeting than we expected, an excellent dinner and back to Little Rock as guests of Gilbert Dean, traveling the highways in a new Oldsmobile, becoming acquainted the while with Ellison and Cull, and to bed at the Albert Pike just about the time we had expected to leave Hoxie by rail, so indeed grateful to the program group for picking us up for this bit of the trip.

May 13th. Uneventful up betimes and back home on Braniff, the pilot selecting a 2,500-foot level this morning so passing Mt. Magazine to look up from our window to the peak. Greeted by Foltz early in the day with the story of the thrifty tomcat.

May 15th. E. M. Shanklin, Indiana's editor, loves, if we surmise correctly: (1) His family; (2) good food; (3) his Medical Society, and (4) the Monon Railroad.



# PROCEEDINGS, SEVENTY-SECOND ANNUAL SESSION ARKANSAS MEDICAL SOCIETY ROBINSON AUDITORIUM, LITTLE ROCK, ARKANSAS

April 15th, 16th and 17th, 1948

## FIRST SESSION, HOUSE OF DELEGATES

April 15, 1948

The meeting was called to order at 9:30 A.M. by President Evans.

The Credentials Committee (Guy Shrigley, Hugh Edwards) reported that the credentials of the delegates present had been examined, found correct and that a quorum was present.

The Secretary called the roll of the delegates.

The following delegates and county society members seated as delegates by action of the House of Delegates (motion Fount Richardson-H. T. Smith) were present:

ARKANSAS—S. A. Drennen; BENTON—C. S. Wilson; CARROLL—Ross Van Pelt; CLEVELAND—W. G. Hancock; COLUMBIA—Joe Rushton; CRAIGHEAD-POINSETT—J. H. McCurry; CRAWFORD—S. D. Kirkland; DESHA—H. T. Smith; GARLAND—H. Clay Chenault, Geo. B. Fletcher, G. C. Coffey; HEMPSTEAD—L. M. Lile; INDEPENDENCE—O. J. T. Johnston; JOHNSON—Guy Shrigley; LAWRENCE—J. C. Land; LINCOLN—C. W. Dixon; MILLER—H. E. Murry; MONROE—E. D. McKnight; NEVADA—A. S. Buchanan; OUACHITA—J. P. McAlister; POPE-YELL—Robert Hood, A. B. Tate; PRAIRIE—J. C. Gilliam; PULASKI—R. E. McLochlin, D. W. Fulmer, Chas. R. Henry, J. N. Compton, C. A. Rosenbaum, D. H. Autry, Raymond C. Cook, T. Duel Brown; RANDOLPH—W. O. Loftis; ST. FRANCIS—J. O. Rush; SEBASTIAN—A. F. Hoge, I. F. Jones; SEVIER—C. A. Archer; UNION—J. H. Pinson, Jr., J. B. Wharton, Jr.; WASHINGTON—Fount Richardson; WHITE—Hugh Edwards.

Other members of the House of Delegates present were:

President Evans, President-Elect Lutterloh, Vice-Presidents T. D. Brown, Fount Richardson and L. M. Lile; Councilors J. H. Wilson, D. L. Owens, Ellery C. Gay, S. A. Drennen, Euclid M. Smith, R. C. Dickinson, Earle H. Hunt, M. C. Crandall and M. C. Hawkins, Jr.; Past-Presidents S. J. Allbright, H. T. Smith, Geo. B. Fletcher, A. S. Buchanan, O. J. T. Johnston, H. King Wade, C. A. Archer, H. Fay H. Jones, M. L. Norwood, L. J. Kosminsky and D. A. Rhinehart; Treasurer Paul L. Mahoney and Secretary W. R. Brooksher.

By motion (Hood-McAlister) the minutes of the Seventy-first Annual Session as published in the June, 1947, issue of The Journal of the Arkansas Medical Society were adopted as correct.

President Evans appointed Ellery C. Gay, D. L. Owens and I. F. Jones as the Reference Committee.

Vice-president T. Duel Brown took the chair.

President Evans delivered the President's Address to the House of Delegates.

I wish to thank the Arkansas Medical Society for the honor it has conferred on me by allowing me to serve as its president. I want to thank all of the committees for being so cooperative in their work the past year.

I believe it was Theodore Roosevelt who said: "The best executive is the one who has sense enough to pick good men to do what he wants done, and self restraint enough to keep from meddling with them while they do it." I have tried not to meddle with your work.

### The Progress of Medicine

No one among the practitioners of medicine can fail to feel a sudden glow of pride when he thinks of the remarkable reduction in mortality in this country in the past 35 years. The average age at death now is 62.7 years for men and 64.3 years for women. This remarkable record was established by private practitioners maintaining private relationships, with physicians practicing outside the realm of state-controlled medicine. The radical change in the mortality picture as a whole over the 35-year period has been due mainly to the phenomenal success achieved in stamping out the infectious diseases. Thirty-five years ago diphtheria, diarrhea, enteritis and typhoid fever all ranked among the first 10 causes of death. A survey in 1945 disclosed that 31 large cities in the United States had no deaths from either diphtheria or typhoid fever. At a meeting of the Arkansas Medical Society at Ft. Smith in 1911, we were told at that time that tuberculosis was far and away the leading cause of death. In the survey made in 1945 tuberculosis was in 6th place and ranks even lower when ages beyond 75 years are included. Influenza and pneumonia have dropped from third to eighth place. I am very proud of the profession in Arkansas because our State in the survey in 1945 had the lowest death rate of any state in the United States. Medicine does have a reason to feel proud as it goes into a new year.

### The Spirit of Medicine

At this time I wish to give you a clipping from The Journal of the Oklahoma Medical Association. "The true spirit of medicine is perpetually striving for higher ground, forever moving toward commendable goals. It enters the realm of the unknown in search of new truths, often revealing the cause of disease, the prevention and cure. Thus the blessings of medical science have been realized for the benefit of humanity. Medicine animated by this spirit seeks no reward other than freedom from bureaucratic directives, fine print bulletins, stereotyped records, incomprehensible blanks, and the annoying necessity of political rating."

### The Medical School

I am well pleased with the progress that has been made in establishing a medical center through the leadership of the men connected with the Medical School. We should continue to support it in every way possible to make it a better and greater medical school. I believe this is one way we can help solve some of our economic problems in our State.

I feel that the men in charge should be commended for the manner of selecting students each year. As you



will notice they are doing their best to have all parts of the State represented. The reason I like this is because I think country boys make better doctors for our small towns than boys from the sidewalks of the larger cities. I feel that they are trying to turn out some general practitioners and not all specialists. I was well pleased with the program that was carried out by the Post-Graduate Committee at the University of Arkansas Medical School on February 19 and 20. I think this should be repeated. I feel it is a great help to our general practitioners. In my opinion the general practice of medicine if properly supported and appreciated by leaders in medical education, can continue to be the backbone of American medicine and the bulwark against the socialization of the healing art.

Dr. Edward C. Elliott of Washington, D. C., gives the following definition of a specialist and a general practitioner: "A specialist is a man who knows more than he is ever permitted to tell. A general practitioner tells more than any man should be permitted to know."

#### **Our Obligation to the Sick**

I wish to call your attention to the editorial appearing in the Arkansas Medical Journal in February, 1948, from the Journal of the American Medical Association calling on the leaders of the medical profession to act promptly in ridding the profession of physicians who accept rebates, kickbacks, and commissions. The pride of medicine as a profession has always been its freedom from the taint of barter and trade in the sick patient. Physicians must give their wholehearted devotion to the care of the patient. No other objective must be given precedence over consideration of the patient's need. We as members of the Arkansas Medical Society and House of Delegates should condemn such if we have it in the State.

#### **Relationship Between Physicians and Hospitals**

I wish to call to your attention that many hospitals have taken over pathology, laboratory work, anesthesia, diagnostic X-ray work and in some instances X-ray therapy, collecting directly from the patients and then paying on a percentage basis or salary.

The question before the medical profession today is: If the corporate practice of medicine in pathology, radiology, and anesthesiology is established, how soon will it be before the same condition is extended to medicine, surgery, obstetrics and other specialists? I think the physicians should be informed of the facts then if it takes legislation to stop it. Then the medical profession should join hands in bringing this about.

#### **National Physicians Committee**

The medical profession over the state should support this committee. If every member of this Society could pay some to this committee it would help it to function successfully. The trouble is some physicians in the state have been leaving this all to the leaders and have not given anything.

Let's go back to our county medical societies and if you have members who have not contributed to this worthy cause ask them to do so at once.

In these dark hours, we in the medical profession should remember the quotation about the stars:

"The darkest night the world has ever known did not put out the stars."

There is a tremendous philosophy packed into that simple sentence; in it is the essence of all progress which mankind has made. It is a brave line; it speaks the faith and hope of those souls who stumble and

fall, and get up again, and go on, and lead the world forward.

We cannot help despair at times. But we can remember the promise of the stars.

President Evans returned to the chair and the committees of the Society reported in order, each report being referred to the Reference Committee.

#### **COMMITTEE ON ARRANGEMENTS**

T. Duel Brown reported for the committee giving information on the social functions planned during the session.

#### **COMMITTEE ON SCIENTIFIC WORK**

Jos. B. Wharton, Jr., Chairman, reported that the committee had made earnest effort to provide a well-rounded, profitable program and hoped that all would enjoy the presentations.

#### **COMMITTEE ON MEDICAL EDUCATION AND HOSPITALS**

**EUCLID M. SMITH, Chairman**

Your committee has met on many occasions with the Medical School authorities. In an early spring meeting last year a decision was reached that, to properly fulfill the requirements of the Council on Medical Education and Hospitals of the American Medical Association, it would be necessary to obtain the services of several full time instructors in the clinical subjects at the School of Medicine. The Medical School authorities obtained the services of full time heads of the following departments: Department of Radiology, Department of Medicine, Department of Obstetrics and Gynecology, Department of Pediatrics, and the Department of Surgery. The services of two additional full time instructors in the Department of Medicine, two in the Department of Surgery, one in the Department of Pediatrics, and one in the Department of Obstetrics and Gynecology were also obtained. This step was augmented by the donated time of outstanding physicians in Pulaski County and in other sections of the state.

A more complete program in residency training has been inaugurated and 10 interns were secured for the University Hospital.

Dr. Benjamin B. Wells was appointed dean of the School of Medicine on July 1, 1947, and was relieved by Dr. Joseph T. Roberts on December 12, 1947, Dr. Wells having departed to accept a new position with the M. D. Anderson Cancer Foundation in Houston, Texas.

Your committee met with the Committee on Mental Hygiene to discuss the advisability of an integrated program, which involved the building of a medical center on the State Hospital grounds and close working arrangements between the School of Medicine and the State Hospital, wherein the School of Medicine and the University Hospital would offer to mental patients all the facilities available at the School of Medicine and University Hospital. After much discussion the two committees decided that this would be a worthwhile project and steps are being taken by the medical school authorities and the State Hospital authorities to effect this plan.

It was decided by your committee that, because of



the shortage of medical technicians, the School of Medicine train applicants sponsored by members of the Arkansas Medical Society, such training to be on-the-job training and not the formal type training required by the American Registry of Medical Technologists. The plan involved a Council member sponsor in each Councilor District, all applicants filtering through the Councilors. Your committee is sorry to report that this plan met with no success and that the School of Medicine is now returning to its former status in the training of medical and radiological technicians, that is, beginning October 1, 1948, only formal planned training will be given by the School of Medical Technology, such training to qualify applicants for certification by the American Registry of Medical Technologists.

Your committee has instructed the Medical School authorities to plan a budget for the next biennium, and at this time only a tentative projected budget has been assembled. However, it appears that, to enable the School of Medicine to fulfill all the requirements of the American Medical Association and to accomplish its service function in the care of the indigent sick of the state, an operating budget for the University Hospital and the School of Medicine would be close to \$1,500,000 in the present location; and with the added functions at the medical center, if and when constructed, the budget should be in the neighborhood of \$2,000,000.

Your committee is happy to report a close working arrangement between the School of Medicine and the State Board of Health, and in this connection recently the State Board of Health authorized the School of Medicine to establish a mental hygiene clinic, which is presently in operation.

## COMMITTEE ON HEALTH AND PUBLIC INSTRUCTION

T. T. ROSS, Chairman

The Division of Industrial Hygiene moved to new and larger quarters on the 5th floor of the State Health Department Building during the past year. The additional space obtained enabled the division to add needed laboratory equipment with which approximately three times as many chemical analyses were made than had been made in any year previously.

With these improved facilities, the engineering program of environmental studies in plants as regard occupational disease hazards was expanded. Such hazards as silica, lead, mercury, carbon monoxide, organic solvents, etc., were found and eliminated. The program of surveys, visits and consultations regarding medical, first aid and sanitation problems was continued. The cooperative work with the Tuberculosis Control Division, whereby chest X-ray surveys were held in industry, was continued.

The 56th State Legislature passed the Industrial Health Service Act (Act 350) which gave the Division of Industrial Hygiene official status and provides the State Board of Health shall have complete authority on all matters pertaining to the maintenance of the health of the industrial worker.

In compliance with Section 5, Act 350 (1947), a regulation requiring all occupational diseases listed in the Workmen's Compensation Act be reported to the State Health Officer by the attending physician was adopted.

Act 85 of 1947 created the Division of Hospitals for the purpose of administering the provisions of Public Law 725 and to inspect, regulate and license all hos-

pitals and related institutions. A State Plan for Hospital Construction as required by Public Law 725 was approved by the Surgeon General of the United States Public Health Service on December 4, 1947. To date 13 applications have been accepted for the first year with estimated total construction cost of \$5,150,000. One hundred twenty-nine hospitals and related institutions have been licensed and inspections will be started at an early date.

Epidemics of influenza, chickenpox, and whooping cough were recorded in 1947. Measles was less prevalent than in 1946, but localized epidemics were recorded. Typhoid fever was notified 102 times; whereas, an even one hundred cases were reported in 1946. Deaths recorded from typhoid fever in 1947 were nine (provisional), which is the least number of deaths from this disease ever recorded in one year. There were 14 deaths recorded in each of the years 1945 and 1946.

Deaths among children six months of age and younger from whooping cough indicate the need for immunization of infants against this killer. A total of 58 deaths were recorded from whooping cough, about three-fourths of them in babies six months of age or under.

During the year an interesting epidemiological study was made of a peculiar illness among excavators of a limestone cave by members of the state staff.

The basic equipment including audiometers, visual testing devices, and incubators have been furnished to local health departments for their work in maternal and child health.

In addition to numerous pamphlets on subjects dealing with maternal and child health, a series of posters on the subject of safety for the pre-school child and a series on common sense in training children have been developed and made available to public health workers.

Registration of mid-wives has been continued and a nurse wife has been available to offer special courses of instruction.

Birth certificates are searched monthly for births delivered by midwives, which are noted on cards for the individual midwives, and for new-born infants with malformations or birth injuries which are reported at once to the Crippled Children's Division of the State Department of Public Welfare.

Death certificates are also searched monthly for maternal and neonatal deaths. Maternal deaths are studied by questionnaire to the attending physician and neonatal deaths by matching them to birth certificates.

Maternal and child health clinics were established in five counties during the year.

There are 176 public water systems in Arkansas serving a population of about 630,000. This is about 32% of the state's total population and amounts to an increase of 14% over last year. Major improvements were made to 27 water systems. Plans have been approved for major improvements for 29 water systems at an estimated cost of about \$2,500,000.

There are 110 towns with a total population of 430,000 (22%) in the state served by a public sewer system. This is an increase of about 13% over last year. Major improvements were made to 16 existing sewer systems. Plans have been approved for 18 new systems and for improvements to 21 existing systems at an estimated cost of about \$3,500,000.

Food and Drug Control activities have been concentrated mostly on food processing plants and the illegal sale of barbiturates and other drugs. Extensive



improvements were made to the existing 162 canning plants.

Food condemned because it had been adulterated or was unsafe for human consumption included—5,000 cases of tomatoes, 64,000 pounds of processed strawberries, 1,000 cases of bottled drinks, approximately 2,500 pounds of hamburger meat, and smaller quantities of other food which had either been adulterated or misbranded.

Training courses are being conducted in food sanitation for sanitarians and food handlers.

The 37 new pasteurizing plants constructed this year brings the total number of plants to 87. Pasteurized milk is available to practically all towns and communities in the state. There are eight pasteurizing plants now under construction or have plans approved.

One thousand, one hundred forty inspections were made of dairy plants. This resulted in the condemnation of 553 cans of milk and 197 cans of cream as unfit for human consumption.

Plant records show that 427,532,282 pounds of milk were purchased last year and that of this amount 11,809,000 pounds were rejected because of being below acceptable sanitary quality.

Malaria control activities during 1947 consisted of DDT spraying of 97,000 houses in rural areas and smaller towns of 38 Arkansas counties and larviciding programs in 12 of the larger towns in these counties. Because of a drastic cut in the federal appropriation for this program the work was offered on a local participation basis. Household holders paid a \$3 fee for the house spraying service and towns made appropriations to pay part of the cost of larviciding. A total of \$330,000 in local money was obtained in this way. It was supplemented by a \$450,000 federal allocation. Approximately 70% of the household holders contacted accepted house spraying on a local participation basis. Educational activities to promote a knowledge of malaria, mosquito proofing, and other malaria control measures supplementing house spraying and larviciding were carried out.

Typhus control activities were concentrated in the 16 counties in which cases of this disease were reported during 1946 and 1947. In Pulaski County, where the majority of reported cases occurred, typhus control programs operated in Little Rock and North Little Rock. In these cities 480 establishments were rat-proofed and rat poisoning carried out in 997 establishments. Other counties from which typhus was reported were encouraged to begin local rat control programs, with emphasis on garbage disposal, and given technical advice on such programs.

During the year 1947 the Hygienic Laboratory examined a total of 160,115 specimens. This is 6,543 less than during the year 1946. This decrease was chiefly evidenced in the serological examinations for syphilis. The laboratory also prepared sufficient typhoid vaccine to immunize 100,000 persons during this period.

During the year 1947 the examination of body fluids for the tubercle bacillus was altered somewhat so as to include the culturing of all specimens. Also the production of diphtheria toxoid was instituted.

The Serology Division participated in the Annual Syphilis Serology Survey as conducted by the United States Public Health Service to determine the accuracy of the technics used by the various state laboratories and were found to have a sensitivity within one percent of the control laboratory of Doctor Kline and still maintain a hundred per cent specificity. In the case of the

Kolmer Wassermann, it was found to be one per cent less sensitive by the control laboratory of Doctor Kolmer and one per cent more specific.

For the first time in the history of the State of Arkansas an accurate estimation of our tuberculosis problem can be made. This is possible through the Central Tuberculosis Case Register of the Division of Tuberculosis Control. As of December 31, 1947, 6,113 cases of pulmonary tuberculosis were listed on this register. These cases need medical supervision and the Central Register, together with the affiliated local tuberculosis case registers, will enable the various health departments to maintain these cases under proper medical care.

A listing of every case, theoretically, under the jurisdiction of the health department is sent to each local health department on the first of each quarter year. These lists are broken down alphabetically by districts in the local health area and afford a very real working guide for the personnel in the local health department. During the calendar year 1947, 2,096 cases of tuberculosis were reported to the health department for the first time. Approximately three-fifths of these cases were in a far advanced stage before they were reported.

Tuberculosis case finding activities have been greatly increased during the last quarter of the year. The division now has four mobile X-ray units producing a 70 mm. photofluorographic film. Each unit is capable of X-raying between 600 and 800 individuals a day and the aim of the division is to X-ray approximately 300,000 citizens of the State of Arkansas each year. One hundred sixteen thousand one hundred forty-four persons were X-rayed during the year.

A total of 232 new cases of pulmonary tuberculosis were officially reported by private practitioners last year as a direct result of the case finding activities of this division. Many cases of heart disease, tumors, aneurysms, and non-tuberculous pneumonitis were also discovered. A total of 2,635 individuals were referred to their family physicians; 1,783 because of suspicion of tuberculosis and all requiring recheck 14x17-inch X-rays, and 852 other persons because of non-tuberculous conditions.

The Division of Tuberculosis Control is quite active in the project of community health organizations and much time has been spent in aiding local communities in developing a working plan.

Progress is being made in the control of this disease as the death rate in Arkansas has dropped 39% from 1936 to 1946.

One of our most pressing needs at the present time is a practical control method for recalcitrant patients. On the whole, however, our aims are being achieved although tuberculosis still remains one of the most important public health problems in our state.

The Venereal Disease Control Program has continued along previously established policies of early case finding and early adequate treatment. Modern penicillin therapy is responsible for a great increase in the number of patients completing adequate treatment.

An average of 52 local health department venereal disease diagnostic and treatment clinics were in operation during the year. A monthly average of approximately 1,000 suspects, contacts, and diagnosed cases of venereal disease were referred or transferred to the



Medical Center by private practicing physicians and local health departments.

On July 1, 1947, the Delta Plantation Mass Blood Testing Survey was established. By the end of the year surveys were completed in four counties. A total of 30,000 blood specimens were procured. Of these 4,800 were positive of syphilis and 2,400 were doubtful.

During the year, physicians in private practice diagnosed and reported 4,232 cases of venereal disease. Local health departments were instrumental in the diagnosis of 17,995. This includes those diagnosed and reported by the Delta Plantation Survey. This makes a total of 22,227 cases of venereal disease diagnosed and reported throughout the state during the year.

Since Act 71, the Pre-Natal Law, which was approved and adopted early in 1947 by the General Assembly, became effective July 1, 1947, there has been a very gratifying cooperation by private physicians throughout the state in their compliance with the requirements of the act. In months and years to come, we anticipate a marked decline in the incidence of congenital syphilis throughout the state through the enforcement of this act. We sincerely feel that the Pre-Natal Law is an excellent educational instrument to the physicians of the state as well as the general public.

A state pre-marriage law, bringing about the detection and prevention of syphilis prior to marriage, is essential in the control of syphilis. Arkansas is now one of only 10 states in the United States that does not have this much desired and needed basic health law.

During the year approximately 1,000 health films were circulated in the state and were shown to a total audience of 100,000. A number of radio programs have been prepared and presented over various stations throughout the state. In the fall of 1947 KARK agreed to allotting 15 minutes time per week for a public health program. To date 13 programs have been prepared and presented. This arrangement with KARK will probably be continued indefinitely.

Numerous talks on the various phases of public health have been made before all types of groups throughout the state and thousands of pamphlets covering practically all phases of public health were distributed.

The Arkansas Health Bulletin has a monthly circulation of 3,000.

Efforts toward the establishment and maintenance of local health services throughout the state were continued as in previous years. The State Department of Health continued to be handicapped in this effort by a shortage of all types of professional public health personnel. At the end of the year there were 11 full-time local health officers and one full-time venereal disease clinician. There were 99 public health nurses and five clinic nurses. There were also 42 full-time sanitation personnel and eight venereal disease case investigators.

An intensive recruitment program for nurses for public health nursing positions was carried on all year. A field training center for new recruits who came into public health nursing with no special preparation was set up in connection with the Little Rock City Health Department.

Local health units in the state have been organized for the purpose of rendering the essential primary services of public health to the people. These services are as follows: communicable disease control; environmental sanitation; public health laboratory service; hygiene in maternity, infancy, and childhood; health education; and vital statistics. To render the above-named services, it is necessary that full-time modern

health departments be established on a county, district, or regional basis.

Last year the committee submitted two resolutions dealing with the establishment of full-time modern health services. We would, at this time, like to resubmit these resolutions. They are as follows:

Resolved, That the Arkansas Medical Society approve the complete coverage of the State's area and population by local, county, or district, full-time modern health services.

Resolved, That the State Constitution be amended (changed either by legislative amendment or referendum) to permit counties to assess a millage for public health purposes, such assessment to be optional with the counties and voted upon by the qualified voters.

## COMMITTEE ON MEDICAL SERVICE AND PUBLIC RELATIONS

CHAS. R. HENRY, Chairman

Following the approval of the House of Delegates on January 26, 1947, of the formation of a voluntary pre-payment surgical, obstetrical, hospitalization plan, a joint committee was formed with members of the Arkansas Medical Society, the Arkansas Hospital Association and the public at large.

Representing the Arkansas Medical Society are Dr. Charles Chamberlain, Fort Smith, for one year; Dr. R. C. Dickinson, Horatio, two years; Dr. P. W. Lutterloh, Jonesboro, three years; Dr. Roy I. Millard, Russellville, four years; Dr. Ellery C. Gay, five years; Dr. Charles R. Henry, Little Rock, six years.

Representing the Arkansas Hospital Association on this committee are John A. Gilbreath, Little Rock, for one year; Miss Regina Kaplan, Hot Springs, two years; Marvin Altmann, Fort Smith, three years; Dr. M. C. Hawkins, Searcy, four years; Monsignor J. J. Healy, Little Rock, five years; John A. Rowland, Little Rock, six years.

Representing the public at large are James H. Penick, president, Worthen Bank and Trust Company, Little Rock, and Edward L. Wright, counsel, Little Rock; W. M. Shepherd, industrial director, Arkansas Power and Light Company, Pine Bluff, two years; Dean Lippert S. Ellis, College of Agriculture, University of Arkansas, Fayetteville, three years; S. P. Dixon, deputy commissioner of labor, Little Rock for four years.

This joint committee submitted the plan approved by the House of Delegates to the 96 insurance companies licensed to sell this type of insurance in Arkansas for competitive bids. Due to the broad benefits requested by the committee, the area to be covered—especially the rural area—the response was poor. However, on April 26, 1947, the joint committee met with the representatives of the interested companies for a free discussion of our program. The following were represented:

Harold Himes, Aetna Life Insurance Company; Foster Vineyard, Aetna Life Insurance Company; Miss Alice Chellberg, American Mutual Alliance, also Employers Mutual Casualty, Liberty Mutual Casualty and Hardware Mutual Casualty of Wisconsin; Bill Howland, Combined Mutual Insurance Company; W. N. Stannus, Pyramid Community Group Insurance Company; S. E. McCreless, president, American Hospital & Life Insurance; W. B. Putnam, American Hospital and Life Insurance Company; Carroll Thomas, General American Life Insurance Company; W. R. Alderson, General American Life Insurance



Company; John Mannix, president, John Marshall Insurance Company of Chicago.

The John Marshall Insurance Company of Chicago was awarded the contract to underwrite our program.

Here in Arkansas, it is interesting to note that a year ago the response of insurance companies to our plan was not remarkable. This year, nationally, there is a tremendous interest in health insurance as evidenced by insurance companies setting up a special conference on health insurance whereby representatives of the insurance industry could meet with representatives of the American Medical Association and other voluntary agencies to discuss matters involving insurance and its relation to the economics of medicine.

The "Arkansas Health Plan" was chosen as the identification name and received the unanimous approval of the joint committee. Milton L. Daugherty of St. Louis was selected and approved by the committee as director of the Arkansas Health Plan. Mr. Daugherty, an attorney, has been active in voluntary prepayment health programs for the past eight years. He was associated with the Blue Cross Plans of St. Louis and southern Illinois.

Offices were officially opened in the Waldon Building in Little Rock, September 1, 1947. Letters were mailed to industry September 8, 1947, from the Arkansas Medical Society over the signature of Doctor Evans, president; September 15 from the Arkansas Hospital Association over the signature of Moody Moore, president; September 22 from John Marshall Insurance Company over the signature of John R. Mannix, president. Many inquiries resulted.

During the fall months most of the time of the director was consumed in contact work. Physicians and hospitals throughout the state were visited by him. Civic meetings were addressed by Mr. Daugherty and with a member of the Joint Committee, he appeared on the program of several of the Councillor District meetings. The chairman of the Joint Committee, the president of the Arkansas Hospital Association and Mr. Daugherty addressed the State Farm Bureau Convention held in Little Rock, November, 1947. County Farm Bureau meetings and Home Demonstration Club meetings were addressed by the director. These are but a few of the contacts made during the early months of operation.

The Joint Committee of the Arkansas Medical Society and the Arkansas Hospital Association met in Little Rock in October, 1947, and March, 1948, to review, plan activities and to consult with the director on future policies.

It is noteworthy that the Arkansas Health Plan has been given unlimited support throughout the state. Physicians, hospitals and lay groups are actively enthusiastic. The support of the Arkansas Farm Bureau and the Extension Service of the University of Arkansas has led to a general understanding of the program by farm leaders. Newspapers out in the state have been unusually generous in publicity for Farm Bureaus and Home Demonstration Clubs meetings held in the interest of the Plan.

Enrollment is progressing satisfactorily and up to this time much attention has been given to rural groups. At present, nine county farm bureaus have completed enrollment of their members and now approximately 2,607 farm bureau people are protected. Twelve more county farm bureaus are in the process of completing their enrollment. A total of 21 counties or approximately one-third of the total number of counties are enrolling or enrolled within the first six months of oper-

ation. No other health program in existence has achieved such an outstanding record in its first months of operation.

Urban, business, and industrial groups have not been neglected and enrollment of such groups is progressing rapidly. Business, industrial, teachers and other professional groups from all parts of the state are now protected. Enrollment of one large group of between 3,000 and 4,000 persons is expected to begin within the next 60 days. Total enrollment which started October 1, 1947, now shows approximately 6,756 people are protected throughout the 71 groups on record.

The office personnel of the Plan consists of director, secretary and field representative. In the near future, another field representative will be placed at Fort Smith to cover both the rural and urban areas of the west and northwest sections of the state.

The Joint Committee commends the John Marshall Insurance Company and its staff for the excellent work in the Arkansas Health Plan. Mr. Daugherty and his staff have worked unusually hard during these early months. To those physicians and groups wanting this service and protection it must appear that the program is moving slowly. A study of the other 90 voluntary pre-payment plans in operation in the United States reveals that the experience of this plan follows the normal growth curve. Had most of the early effort been focused on urban areas enrollment would have undoubtedly been greater. As mentioned previously, no other plan has made such progress in rural development in the early months of operation. For the present it seems wise to study and evaluate the experience in the rural areas and to direct effort toward urban enrollment.

The Joint Committee desires that the growth of the Arkansas Health Plan be consistent with good business and good financial judgment. It is felt that expansion is progressing at a sound rate of speed.

In the near future this protection will be offered to physicians, dentists, bar associations and similar professional groups on a state-wide basis.

The Committee on Medical Service and Public Relations unanimously feel that serious thought be given to establishing a state-wide public relations program. This would entail much work on the part of the membership of the Society and a substantial increase in dues.

Such a program would necessarily recruit committeemen from all sections of the state. Men interested in this type of program and who are willing to give generously of their time and abilities should be selected.

Such media as newspaper advertising, radio, contests, awards and literature, Women's Auxiliary, visual education and public speaking would be used.

A public relations program is costly but the experience of those states where this type of program is in operation is that the results obtained in education and good far exceed the cost.

Before this committee embarks on a study and working out a detailed public relations program to submit to the Society, we should like an expression from the House of Delegates as to whether they feel such a program is feasible.

The Committee on Medical Service and Public Relations also recommends that the Society subscribe for

- (a) The Shearon Legislative Medical Service;
- (b) The Washington Medical Service.

In addition to the formal report, Chairman



Henry discussed the forthcoming National Health Assembly, its formation and avowed functions and representation sought by the Society in the Assembly. Discussion by T. T. Ross and Joe N. Roberts.

On January 30, 1948, the President of the United States addressed a letter to Hon. Oscar R. Ewing, administrator of the Federal Security Agency as follows: "Dear Mr. Administrator:

"The health of our people is of such importance to our national welfare and security that I wish to make certain that we are taking all possible steps to contribute to its improvement. I have, as you know, repeatedly requested the Congress to enact legislation designed to expand basic health services and to bring them within the reach of all the people. While such legislation is of primary importance, its enactment alone will not assure that we shall reach the highest possible levels of health. The attainment of such a goal requires the cooperation of state and local governments, voluntary organizations, the medical and health professions, as well as all of our citizens working together.

"Our people want good health and we are willing to work to achieve it. Notable progress has already been made. But I am convinced that we have scarcely scratched the surface and that, as a Nation, we can make rapid progress in the immediate future.

"I should like to ask you, therefore, to undertake a comprehensive study of the possibilities for raising health levels and to report to me, at your early convenience, upon feasible goals which might be realized by the American people in the next decade. I should appreciate further any suggestions you may wish to make concerning the most practicable methods of achieving such goals. In preparing this report, you will undoubtedly wish to confer with interested persons both in and out of the Government.

"Very sincerely yours,

"Harry S. Truman."

Quoting the New York Times, February 15, 1948, "Terming the President's Request" one of the most important assignments ever given in peacetime to a federal agency, Mr. Ewing said he was approaching this task with all the zeal of a new convert "as a lawyer who now has a chance to deal with the limitless vistas of medical science."

In response to this letter from the President, Mr. Ewing has arranged a National Health Assembly to meet in Washington, May 1 through May 4 at which time a 10-year health program will be outlined. An Executive Committee of 24 members which included only one physician was appointed by Mr. Ewing. It is significant that four more physicians and four leaders in allied health fields were later added. This is the result of protest.

A telegram was dispatched to the Hon. Brooks Hays, March 15, asking for the names of delegates from Arkansas. A letter from Mr. Hays informed me that a tentative list of three delegates from Arkansas to the National Health Assembly has been selected. They are:

Miss Ruth Powell, state superintendent of the School Lunch Programs;

Miss Helen Robinson, administrator, University Hospital;

Dean Lippert Ellis, College of Agriculture, Fayetteville.

Probably other delegates will be invited, but nothing definite has been decided at this time.

Seven hundred to eight hundred delegates will attend these sessions in May.

Doctor Brooksher protested the action of the Federal Security Administrator in excluding a doctor of medicine from Arkansas to attend an assembly which is so vital to our existence. His letters were to the senators from this state and were forwarded to Mr. Ewing. His reply was that "crowded conditions in Washington prevented invitation to members of the medical profession from Arkansas."

Among the 14 sections at the Health Assembly will be a panel on medical care (previously designated as compulsory health legislation, national health insurance and popularly known as the Wagner-Murphy-Dingel Program) and a panel on "The Nation's Need for Medical and Health Personnel" which discusses the ways and means for federal funds to be used in aid to operation of medical schools and aid to medical students, nurses, dentists and public health personnel.

The Arkansas Medical Society and other state medical societies should have representation at a meeting which proposes to outline a 10-year health program affecting the people of this and other states. The Executive Committee is filled with social planners, labor leaders, and other groups interested in forcing socialized medicine on the people of the United States.

The Arkansas Medical Society should protest to the American Medical Association and to all representatives and senators the **broad powers** given to the Federal Security Administrator in outlining such a vast health program.

The Arkansas Medical Society should condemn and resist the interference of the federal government in medical education and research. Medical education is a state problem.

Federal invasion into medical education and the granting of scholarships usually follow the pattern to the effect that "Scholarships and fellowships would have to be awarded without regard to race, creed or country of national origin." Schools desirous of having some reasonable control over the composition of the student body would find themselves in disputes with the federal government.

The Board of Trustees of the American Medical Association disapproves of S. 1455, H.R. 3925 which would provide funds for medical education on the ground that federal authorities would be given undue control.

An editorial in the Journal of the American Medical Association December 15, 1947, lists what seven states are doing to assist students and increase medical personnel.

This scheme of subsidy of medical education is just another entering wedge of social planners to collectionize the medical profession by laying the dead hand of bureaucracy on medical schools and research centers.

## COMMITTEE ON SCIENTIFIC EXHIBITS

JEFF BANKS, Chairman

Secretaries of each councilor district were contacted early in the year and were requested to solicit their membership for exhibits at the annual 1948 session. Other groups such as the State Health Department, University of Arkansas School of Medicine, the larger hospitals of the state, and other health agencies were



also contacted. Their response to these requests are shown in the 15 exhibits on display.

There is still a marked lack of interest on the part of individual doctors or men in group practice, in preparing exhibits. It is felt that these men have definite contributions to make to a scientific exhibit.

Attention is called to the fact that the state Society makes no provisions for providing exhibit booths, or suitable uniform panels for displays. Possession of such facilities for use year after year would make the preparation of the exhibits much easier.

## COMMITTEE ON MATERNAL AND CHILD WELFARE

I. F. JONES, Chairman

The Committee on Maternal and Child Welfare have not had a meeting as there has been no important matters to come before this committee.

The committee, in cooperation with Dr. W. R. Brooksher, editor of The Journal, started a column each month in the Arkansas Medical Journal. We hope that this column has been an incentive to those doing obstetrics to further study the different complications that can take place.

The committee wishes to take cognizance of the fact that the American Academy of Pediatrics Executive Board has approved a resolution regarding pediatric training and education that we deem is making a dangerous step towards socialization of medicine. This resolution deals with asking the federal government to subsidize pediatric education in medical schools and other activities to extend federal aid to getting more doctors in rural areas.

We would also like to call your attention to Senate Bill S 1290, to provide for development of children's health through Federal Security Agency.

We recommend:

1. A resolution by the House of Delegates assembled that it disapprove the resolution endorsed by the Executive Board of the American Academy of Pediatrics favoring subsidized pediatric education by the federal government.

2. That a copy of this disapproval be sent to:

The American Academy of Pediatrics;

The American Medical Association;

The American Association of Physicians and Surgeons.

3. A resolution disapproving S. 1290 to provide for children's health through the Federal Security Agency and that our representatives in Congress be advised of this disapproval.

4. A continuation of the column begun in The Journal of the Arkansas Medical Society by the Committee on Maternal and Child Welfare this year.

## COMMITTEE ON STUDY OF MIDWIFERY

J. P. PRICE, JR., Chairman

Midwives, 1,143 of them, delivered 7,701 infants in Arkansas in 1947, according to birth certificates filed with the State Board of Health before March 1, 1948. This is about 200 fewer births than were reported by midwives five years ago, in 1943, but there is every reason to believe that their reporting of births is considerably better now than it was then, so that there is doubtless a greater actual decline in midwife deliveries than this shows.

Before there can be any considerable reduction in this number, of deliveries by midwives there must be more hospital beds for negro obstetrics. Except for the

23 beds in the University Hospital these are practically non-existent. While new hospital construction underway or planned will include additional facilities much more is needed.

In its midwife control program the State Board of Health attempts to weed out the most unfit midwives, to keep the others under supervision, to encourage patients to patronize supervised rather than unsupervised midwives, and to limit the practice of midwives insofar as possible to normal multiparae.

In 1947, 756 midwives were given permits (which must be obtained annually) but 176 of these reported no births, leaving 580 active. These 580 active midwives with permits reported 5,400 births, an average of a little more than nine each. However 563 midwives without permits reported 2,301 births, averaging about four each. In 1943, 632 active midwives having permits reported 4,889 births, averaging not quite eight each, but 933 midwives without permits reported 3,026 or about three each. There were therefore 52 fewer midwives with permits and 370 fewer practicing without permits last year than five years ago. Midwives with permits delivered 511 more babies, and those without permits delivered, or at least reported, 725 fewer babies, in 1947, as compared with 1943.

Table I, gives the number of births reported by midwives holding and not holding permits, the number of midwives holding permits and the number of those who reported births but did not have a permit in 1947. Midwife permits are assuming greater importance to the midwives. One woman who had never had a permit but had reported five births in the last four years recently attempted to trick the Health Department into giving her one by writing—"Der Sur i am Ritin to you for some lison to be a midwife mine got blow away in a storm and I want another pair please and soon."

How many midwives have been refused permits by the local authorities is not known, but in the three counties in which the negro nurse-midwife worked in 1947 and early in 1948, 60 midwives signed pledges to stop practice.

This negro nurse-midwife was assigned to three counties in 1947, spending from three to four and one-half months in each county. During this time she visits the home of each midwife, and conducts from 14 to 18 classes, all of which the midwives are expected to attend. Subjects covered include instruction and drill in the filling out of birth certificates, the midwife bag and its care, the importance of medical supervision; the importance of adequate diet during pregnancy; the danger signals of pregnancy; the conduct of a normal delivery; and home nursing care of the newborn and of the mother after delivery. Midwives are strictly forbidden to make any internal examinations or give any drugs. They pledge themselves to urge every patient to obtain medical prenatal care and in counties in which it seems feasible they agree not to accept any patient who has not had medical prenatal care except in a bona fide emergency.

At the close of the nurse-midwife's stay in a county an all-day meeting is held to which leaders in the negro group are invited, and several hundred usually attend. The audience is told what to expect of a midwife and what a midwife is not allowed to do. The reasons for the importance of medical prenatal care including a blood test for syphilis are explained, and a health movie is usually shown. With considerable ceremony, the permits are given to those midwives who have completed the series of lessons and otherwise complied with require-



ments. Midwives who have had permits in the past but who are unable (usually on account of age) to meet present requirements are given so-called honorable retirement certificates, and the audience is urged to respect their decision to retire, and cautioned that only the midwives with permits are allowed to practice.

In order to assist the midwives' patients to obtain medical prenatal care maternity clinics have been established in 11 counties with the approval of the medical profession. In 1947 in 209 sessions negro women made 2,488 prenatal and 493 postpartum visits. This does not include visits to the clinics at the University Hospital.

The continued cooperation of the members of the Arkansas State Medical Society in this program is respectfully requested.

TABLE I  
Number of midwives reporting births, and the number of births reported by them:  
Arkansas, 1947

Births Reported by Midwives			
Year	Total	With Permit	Without Permit
1943 .....	7,895	4,889	3,026
1944 .....	7,637	4,921	2,716
1945 .....	7,751	5,303	2,446
1946 .....	.....	.....	.....
1947 .....	7,701	5,400	2,301

Midwives Reporting Births			
Year	Total	With Permit	Without Permit
1943 .....	1,565	632	933
1944 .....	1,474	600	874
1945 .....	1,403	629	774
1946 .....	.....	.....	.....
1947 .....	1,143	580	563

COMMITTEE ON LIAISON WITH THE  
ARKANSAS TUBERCULOSIS ASSOCIATION  
A. C. SHIPP, Chairman

The program of the Arkansas Tuberculosis Association continues to be very closely coordinated with the Division of Tuberculosis of the State Department of Health and the State and County Medical Societies. With the four mobile X-ray units of the State Health Department in the field for case-finding, it becomes increasingly necessary that the Association continue to stress its educational program in order that the people of the state may become thoroughly familiar with the fact that X-ray services are available in every county of the state. Interest on the part of the medical societies and the lay people has steadily increased, and whereas a few years ago 50 persons were X-rayed in one day, as many as 1,000 are X-rayed in one day with the present equipment. Every county in the state has had the services of this mobile X-ray equipment.

The committee recommends that further study of legislation or strengthening of the state Board of Health regulations, with reference to compulsory hospitalization of the recalcitrant tuberculous patient, should be made. Because of inadequate bed capacity, at the McRae Negro Sanatorium, this compulsory hospitalization will not be possible until the new beds are available.

We believe that as physicians and lay workers we should continue to use every effort to educate the people of our state and counties to the fact that tuberculosis is a disease comparatively easy to cure if found in time, and that the best known method of finding tuberculosis is by the use of the X-ray. We believe that a short

refresher course on tuberculosis would be very helpful to any of the physicians of the state, and the committee would like to recommend that the State Medical Society, the University Medical School, and the State Tuberculosis Association cooperate in an effort to provide this course.

COMMITTEE ON NECROLOGY

L. H. McDaniel, Chairman, announced that the annual Memorial Services to be held April 16th would constitute the report of the Committee.

COMMITTEE ON CANCER CONTROL  
FRED HAMES, Chairman

Your committee feels that the past year has been one of progress in many ways. Everyone has given freely of his time when called upon and this has been frequent.

The Committee on Education arranged programs which were conducted by prominent out-of-state physicians. Clinics were held, usually in the afternoons, and were followed by scientific talks to the physicians in the evenings. These educational programs were well received but some of us feel that we have not yet reached the ideal in that there are so many physicians in rural areas who do not attend.

This committee, acting as the Executive Committee for the Arkansas Division of the American Cancer Society, has assisted many of the physicians throughout the state in the conducting of diagnostic cancer clinics. From one to three clinics were held in 24 counties. A total of 53 clinics were conducted during the year.

Permanent tumor clinics have been established in Fort Smith, Texarkana, Little Rock, and Pine Bluff. An additional clinic is being formed in Union County.

COMMITTEE ON MENTAL HYGIENE  
A. C. KOLB, Chairman

Your Committee on Mental Hygiene submits the following report:

(a) On September 21, 1947, the committee—a majority of the committee—all had been notified—met in Little Rock with the Committee on Medical Education and also the president and secretary and other officials of the Arkansas State Medical Society, together with officials of the School of Medicine of the University of Arkansas, to study, discuss and pass upon the question of the locating on the State Hospital grounds the State Memorial Hospital which the 1947 legislature had appropriated the funds to build. Also the question of the relocation of the School of Medicine on the same grounds in connection with this hospital, thus establishing a strong Medical Center for the state of Arkansas of which the people would be proud. After a full and thorough discussion of the matter, both committees voted unanimously in favor the proposal. Later, the Arkansas State Supreme Court, by a decision, ruled that the Board of Trustees of the University of Arkansas had the authority to relocate the Medical School and that the Board of Control of the State Hospital had the authority to cede the ground for that purpose. Thus, all legal obstacles to this proposal were set aside. A strong movement was made to secure the location on the State Hospital grounds of the new Veterans Administration General Hospital which is to be built in Little Rock. On account of advanced plans for the erection of this institution such as blueprints, letting of contracts, etc., this effort failed.

(b) In the fall of 1946, a residency training program



# Enouncement

EXACTITUDE  
EXCELLENCE

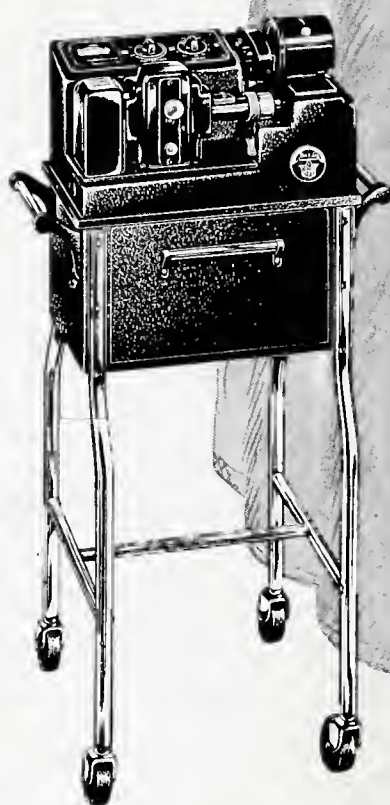
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TRUE recording of the heart current is accomplished with the Model E . . . a *dust-proof* quartz-string electrocardiograph incorporating TRUE photo-electric timing and TRUE meter-measured millivolt standardization.

Into this brilliantly new instrument have gone such conveniences as a daylight loading camera and a lead selector, making it possible to take routinely the seven standard limb and precordial leads. Distinctive and dignified in appearance . . . a new conception in compactness and portability is achieved. The Model E is only 14¼" short, 8½" narrow and 9" low. It weighs just 25 lbs.

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# TIME MARCHES ON

## *"Partial List of Users"*

The following physicians, clinics, and hospitals are satisfied users of the Beck-Lee Hindle Electrocardiograph. It's really a fine list of choice users.

- |                                     |                    |   |                      |
|-------------------------------------|--------------------|---|----------------------|
| 1. McRae Sanatorium.....            | Alexander, Ark.    | 31. Univ. of Ark. Medical School                  | Little Rock, Ark.    |
| 2. Dr. J. M. Norton.....            | Arkadelphia, Ark.  | 32. Dr. Joe Rushton.....                          | Magnolia, Ark.       |
| 3. North Arkansas Clinic.....       | Batesville, Ark.   | 33. Dr. C. L. Weber.....                          | Magnolia, Ark.       |
| 4. Dr. R. M. Atkinson.....          | Bentonville, Ark.  | 34. Wilson Clinic.....                            | Magnolia, Ark.       |
| 5. Dr. Sammons & Woodcock.....      | Berryville, Ark.   | 35. Mack Wilson Hospital.....                     | Monticello, Ark.     |
| 6. Dr. N. G. Partee.....            | Camden, Ark.       | 36. St. Anthony's Hospital.....                   | Morrilton, Ark.      |
| 7. Drs. Hunt & Siegel.....          | Clarksville, Ark.  | 37. Dr. S. W. Chambers.....                       | Mt. Home, Ark.       |
| 8. Drs. Reed & Wright.....          | Clarksville, Ark.  | 38. Dr. Fred Ferguson.....                        | Nashville, Ark.      |
| 9. Dr. J. S. Sneed.....             | Conway, Ark.       | 39. Dr. Jabez Jackson.....                        | Newport, Ark.        |
| 10. Dr. R. L. Taylor.....           | Conway, Ark.       | 40. Dr. W. L. Fulton.....                         | N. Little Rock, Ark. |
| 11. DeQueen Clinic.....             | DeQueen, Ark.      | 41. Dr. B. L. Church.....                         | N. Little Rock, Ark. |
| 12. Dr. B. E. Barlow.....           | Dermott, Ark.      | 42. Veterans Administration, N. Little Rock, Ark. |                      |
| 13. Fayetteville City Hospital..... | Fayetteville, Ark. | 43. Dr. P. W. Turrentine.....                     | Osceola, Ark.        |
| 14. Dr. R. A. Long.....             | Fayetteville, Ark. | 44. Dr. Fred Hames.....                           | Pine Bluff, Ark.     |
| 15. Estes & Atkinson Clinic.....    | Fordyce, Ark.      | 45. Dr. J. L. Harwell.....                        | Poplar Bluff, Mo.    |
| 16. Roy Hospital.....               | Forrest City, Ark. | 46. Lucy Lee Hospital.....                        | Poplar Bluff, Mo.    |
| 17. Colonial Hospital.....          | Fort Smith, Ark.   | 47. Dr. J. J. Killion.....                        | Portageville, Mo.    |
| 18. Dr. J. W. Branch.....           | Hope, Ark.         | 48. Buchanan Clinic.....                          | Prescott, Ark.       |
| 19. Dr. J. Martindale.....          | Hope, Ark.         | 49. Dr. B. R. Teeter.....                         | Russellville, Ark.   |
| 20. Methodist Hospital.....         | Hot Springs, Ark.  | 50. Dr. F. G. Throgmorton.....                    | Sikeston, Mo.        |
| 21. U. S. Public Health Service     | Hot Springs, Ark.  | 51. Dr. Kenneth Siler.....                        | Siloam Springs, Ark. |
| 22. Dr. Euclid M. Smith.....        | Hot Springs, Ark.  | 52. Dr. H. E. McEntire.....                       | Star City, Ark.      |
| 23. Williams Hospital.....          | Idabel, Oklahoma   | 53. Dr. W. T. Champion.....                       | Stuttgart, Ark.      |
| 24. Dr. C. P. Harris.....           | Jonesboro, Ark.    | 54. Dr. T. S. Van Duyn.....                       | Stuttgart, Ark.      |
| 25. Dr. J. C. Farris.....           | Jonesboro, Ark.    | 55. Drs. Daniel & Burnett.....                    | Texarkana, Ark.      |
| 26. Dr. W. Meyers Smith.....        | Levy, Ark.         | 56. Lone Star Ordnance Plant.....                 | Texarkana, Ark.      |
| 27. Dr. Bryce Cummins.....          | Little Rock, Ark.  | 57. Dr. H. W. Savery.....                         | Van Buren, Ark.      |
| 28. Dr. Dan Autrey.....             | Little Rock, Ark.  | 58. Dr. L. H. McDaniel.....                       | Tyronza, Ark.        |
| 29. Dr. Don Dykstra.....            | Little Rock, Ark.  | 59. Dr. R. S. Faircloth.....                      | Walnut Ridge, Ark.   |
| 30. Dr. Fred Harris.....            | Little Rock, Ark.  | 60. Crow Hospital.....                            | Warren, Ark.         |

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in neuropsychiatry was established at the Veterans Administration Hospital at Fort Roots. This was later extended to include the School of Medicine of the University of Arkansas and the State Hospital. Dr. Crawford N. Baganz of the medical staff of the Veterans Administration Hospital was placed in charge of this program. At the beginning of the 1947-1948 session of the School of Medicine, the teaching of neurology and psychiatry was begun in all four of the classes of the school. This is, indeed, an accomplishment of which we are all proud. The Regional Office of the Veterans Administration is also cooperating in the program by loaning, for teaching purposes, all members of the neuropsychiatric staff of the Medical Division of that office. Dr. George B. Fletcher of Hot Springs—a member of this committee—is also a member of the teaching staff. Thus, a new day has dawned in Arkansas in the matter of better and more efficient training in neurology and psychiatry in the School of Medicine. It will ultimately mean much to the mentally sick people of this state.

### COMMITTEE ADVISORY TO STATE INSTITUTIONS

R. B. Robins, Chairman, announced that relations between the Society, the Governor and the various State Institutions had been most cordial throughout the year and the committee had found it a pleasure to serve.

### COMMITTEE ON VETERANS ADMINISTRATION MEDICAL CARE PROGRAM

DANIEL H. AUTRY, Chairman

Probably all doctors in the state are familiar by now with the handling of authorizations for the examination and treatment of veterans. The committee realizes that a certain amount of paper work is required but it is of the opinion that it would be impossible to carry on veterans' medical care without at least a minimum of control on authorizations. It is the opinion of the committee that the officials are as lenient in their authorizations as the budgets and regulations under which they operate will permit.

Part one of the fee schedules has been in effect for over a year as a contract agreement between the Arkansas Medical Society and the Veterans Administration. Part two of the fee schedule was submitted to the Veterans Administration for approval over a year ago but no agreement has as yet been reached. Another committee of the Arkansas Medical Society has responsibility for negotiations concerning the fee schedules. In the meantime the fee schedule of the Veterans Administration which was adopted by the Kansas Medical Society in January, 1948, is in effect.

During the past year over \$200,000 was authorized by the Veterans Administration for examination and treatment of veterans on a fee basis throughout the State of Arkansas. There was actually paid \$118,384 from January 1 to December 31, 1947. Many authorizations during 1947 have been paid since January 1, 1948. There is attached to this report the amount of cash expenditure for each county in the state during 1947.

This committee was appointed for the primary purpose of reviewing any complaint by the Veterans Administration

that a physician had provided either inadequate examination of, or inadequate treatment for, a veteran. To date there has been no occasion for the committee to function in this manner.

The committee wishes to call attention to one regulation of the Veterans Administration which requires that at least two veterans each month be brought in to the regional office at Little Rock for the purpose of spot-checking examinations and treatments. In some quarters there has been a misunderstanding to the effect that veterans were brought to Little Rock for examination or treatment upon the veteran's request for it. This is not the case and every effort is made to have all examinations and treatments rendered by local physicians wherever facilities are adequate.

From time to time colored physicians request that they be approved for examination or treatment of colored veterans. These requests will be referred to the president of the local county Medical Society, who should investigate the professional credentials and give an opinion regarding the advisability of approving the colored physician for the veteran's program.

Some physicians have found that completion of the necessary forms required too much secretarial time and accordingly have requested that their names be withdrawn from the approved list of doctors providing veterans medical care. The committee knows of no alternative than to approve such requests. However, the committee wishes to emphasize that at any time it will be willing and happy to assist any physician in any way possible to eliminate any difficulties in handling veteran cases.

Cash expenditures for veterans medical care by counties during 1947:

Arkansas .....	\$ 141.00	Johnson .....	\$ 2,206.00
Ashley .....	43.50	Lawrence .....	261.00
Baxter .....	400.50	Lee .....	33.00
Benton .....	715.25	Lincoln .....	9.00
Boone .....	1,782.50	Little River .....	69.00
Bradley .....	31.00	Logan .....	105.00
Carroll .....	8.00	Monroe .....	65.00
Chicot .....	225.25	Nevada .....	282.00
Clark .....	901.00	Ouachita .....	1,715.00
Clay .....	50.50	Phillips .....	1,323.00
Cleburne .....	327.00	Polk .....	306.00
Cleveland .....	6.00	Pope .....	2,563.00
Columbia .....	262.00	Poinsett .....	188.00
Conway .....	910.00	Prairie .....	21.00
Craighead .....	5,704.50	Pulaski .....	44,613.50
Crawford .....	73.00	Randolph .....	443.00
Crittenden .....	40.00	St. Francis .....	526.00
Cross .....	56.00	Saline .....	82.50
Dallas .....	133.00	Searcy .....	15.00
Desha .....	393.00	Sebastian .....	26,003.50
Drew .....	1,073.50	Lonoke .....	230.00
Faulkner .....	1,433.00	Miller .....	9,335.00
Franklin .....	113.00	Mississippi .....	575.50
Garland .....	1,748.00	Scott .....	3.00
Grant .....	9.00	Sevier .....	297.00
Greene .....	613.00	Union .....	1,829.50
Hempstead .....	141.50	Van Buren .....	27.00
Hot Spring .....	76.00	Washington .....	832.00
Howard .....	6.00	White .....	426.00
Independence .....	4,066.50	Woodruff .....	15.00
Jackson .....	593.50	Yell .....	54.00
Jefferson .....	1,854.50		



**COMMITTEE ON MEDICAL LEGISLATION****JOS. F. SHUFFIELD, Chairman****COMMITTEE ON POSTGRADUATE STUDY****JOS. F. SHUFFIELD, Chairman**

Your Postgraduate Study Committee held a meeting on January 25, 1948, at the Albert Pike Hotel. The majority of the committee was present and the remainder of the committee sent telegrams that they were snowbound and would be unable to attend. After considerable discussion of the work that the Postgraduate Committee may do the following motions were made:

1. On motion of Dr. D. A. Rhinehart and seconded by Dr. Langston, it was voted that the committee go on record as favoring a continuation of the refresher programs of the Arkansas Medical Society in cooperation with the University of Arkansas School of Medicine and that the committee, with the assistance of the staff of the University, should carry out programs in central localities of the state, preferably on the councilor district basis, once a year, and that one or two statewide postgraduate assemblies be held in Little Rock each year as was done before the war.

2. A motion was made by Dr. Barlow and was passed that the chairman of the Postgraduate Committee appoint a sub-committee of three from the Postgraduate Committee who would act with a committee appointed from the School of Medicine in formulating such a program and this committee would report back to the committee as a whole at, or before, the annual meeting of the State Society. This motion prevailed and the sub-committee was appointed consisting of the members that lived in Little Rock, Dr. Rhinehart, Dr. Langston and the chairman of the committee.

3. On motion of Dr. Barlow, the committee voted that the authorities of the Medical School be requested to provide, as a part of their medical postgraduate program, a series of refresher courses in the School of Medicine and conducted by the staff. The number and size of this group, the duration of the course and the fee to be charged to be determined by the school and that admission be by application.

4. A motion was made by Dr. Barlow and was voted that the Postgraduate Committee have a two-day program on February 19 and 20 of 1948, the first day being in cooperation with the Crippled Children's Division of the State Welfare Department and that this two-day program be put on without a fee. This was done and a very good program was had with a total of 220 members attending.

5. A motion was made by Dr. Langston and was voted that the recent arrangements established between the Medical School and the Journal of the Arkansas State Medical Society whereby items of professional interest originating in the faculty of the Arkansas School of Medicine be published be approved.

6. Following a discussion of the value of holding the meetings of the Arkansas Medical School alumni, the committee went on record as favoring such a meeting on the evening of February 19 and this was done with very good attendance.

A copy of these committee resolutions passed was sent to each state councilor and the committee feels that the councilors of the various districts should make application to the Postgraduate Committee for these programs if they so desire, stating where they wish to

have them, the type of program desired and the date upon which they wish to have these programs.

The committee feels that this is a rather ambitious program and believe that much good can be had from such Postgraduate Study Programs.

Before this two-day study program the committee had \$950.99 on hand. The expenses for this program were \$584.96, leaving a balance of \$366.03.

**THE STATE MEDICAL BOARD OF THE  
ARKANSAS MEDICAL SOCIETY****L. J. KOSMINSKY, Secretary**

I herewith submit, for your approval, the action of the State Medical Board of the Arkansas Medical Society since the meeting last year.

There were 55 applicants up before the Board during the year for final examination, and all passed the examination satisfactorily and were issued certificates to practice medicine in the State of Arkansas.

There were 46 applicants for the primary examination, all of whom made passing grades.

After submitting the necessary fee, 49 physicians have been certified to various state boards during the past year.

After having presented satisfactory evidence of graduation from reputable medical schools, and having complied with all the necessary requirements of the law, 42 applicants from other states and the National Board have been licensed by reciprocity and endorsement.

Duplicate licenses were issued to three doctors after they had presented satisfactory evidence that their original licenses had been lost or destroyed.

Dr. John M. Proctor, member of the Board, passed away during the past year. Dr. Chas. H. Lutterloh, Hot Springs, was appointed by the governor to serve the unexpired term.

The matter of lowering the annual registration fee was fully discussed at the Board's meeting last November, after which it was agreed by all members that the fee could be lowered to \$1 annually for residents and \$2 annually for non-residents. The reduction in registration dues to become effective in 1949.

Drs. J. B. Jameson, J. T. Matthews and the secretary attended the Federation of State Boards meeting in Chicago, last February. Many interesting and helpful discussions were heard. A talk of particular interest was that given by Dr. Jacob L. Lochner, Jr., secretary of the New York Board of Medical Examiners, relative to the many doctors from Europe who are coming to the United States and applying to the various state boards for license to practice medicine. Our board has had several inquiries relative to the requirements for medical licensure for foreign doctors. We have also had several inquiries from boys, who contemplate attending European medical schools, as to whether or not these schools meet the requirements of the Arkansas Board.

At the meeting of the House of Delegates in Cleveland in January of this year, a copy of the Arkansas Medical Practice Act was requested, which request was granted. I am proud to report that they considered the Medical Practice Act very good with the exception that we do not require a year or more internship in a recognized hospital.

A financial report was given to the Council of the Arkansas Medical Society last month. The report was



presented by my secretary since I was physically unable to make the trip.

The following is a list of members of the State Medical Board of the Arkansas Medical Society:

J. B. Jameson, M.D., president; J. T. Matthews, M.D., vice-president; C. Ray Williams, M.D., Joe Verser, M.D., Charles H. Lutterloh, M.D., and L. J. Kosminsky, M.D., secretary and treasurer.

We now have reciprocal agreement with the following states:

Alabama, Alaska, Arizona, California, Colorado, Connecticut, District of Columbia, Georgia, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maine, Maryland, Michigan, Minnesota, Mississippi, Missouri, Nebraska, Nevada, New Jersey, New Mexico, New York, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, South Carolina, South Dakota, Tennessee, Vermont, Virginia, West Virginia, Wisconsin and Wyoming.

The reciprocity fee for all the above named states is \$50 with the exception of Alaska, Arizona, California, New Jersey, Oklahoma, Pennsylvania and Virginia, which fee is \$100. The fee for Minnesota is \$75.

For the last few years, as you no doubt will recall from last year's report, we have not had reciprocal agreement with Texas, due to the fact that Texas does not like to have their licentiates to have to take the basic science examination.

Both Dr. T. J. Crowe, Dallas, and Dr. N. D. Buie, Marlin, passed away a few months ago. Dr. Crowe served as secretary of the Texas State Board of Medical Examiners for many years. Dr. Buie was a member of the Board.

Perhaps reciprocity may be renewed this year. I suggest to the incoming president that a fraternal delegate be sent to the meeting of the Texas Medical Society, in Houston, with the idea of presenting the question of renewal of reciprocal agreement.

RECEIPTS AND DISBURSEMENTS FROM JUNE 5, 1947, TO MARCH 18, 1948

Balance June 5, 1947 . . . . .	\$ 8,491.07
Receipts:	
Reciprocities .....	2,050.00
Certifications .....	600.00
Examination (four years complete) .....	100.00
Primary examination .....	660.00
Duplicate licenses .....	15.10
Registration fees .....	4,048.35
Express charges refunded .....	1.34
	<hr/>
	7,474.79
Disbursements:	
Secretary salary .....	2,475.00
Office rent .....	135.00
Social security .....	15.75
Postage .....	145.00
Express and telephone .....	4.94
Salary and expenses of Board members at meetings .....	1,740.80
Expenses of four to Federation of State Board meeting, Chicago .....	500.00
Office supplies .....	2.80
Phillips County Medical Society .....	250.00
Nelson Printing Company .....	128.20
Flowers (Dr. Proctor) .....	10.00
Typewriter .....	136.00
Filing cases (two) .....	123.55

Dues for Federation of State Boards .....	25.00
	<hr/>
	5,692.04
Balance June 5, 1947 .....	8,491.07
Total receipts .....	7,474.79
	<hr/>
	15,965.86
Less total disbursements .....	5,692.04
	<hr/>
Balance in bank, March 18, 1948 .....	10,273.82

RECEIPTS AND DISBURSEMENTS FROM JUNE 5, 1946, TO JUNE 5, 1947

Cash on hand June 5, 1946 .....	\$ 6,307.90
Receipts:	
Reciprocities .....	2,578.99
Certifications .....	981.00
Final examination (last two years) .....	450.00
Final examination (four years complete) .....	150.20
Primary examination .....	285.00
Duplicate licenses .....	30.00
Registration fees .....	4,247.68
	<hr/>
	8,722.87
Disbursements:	
Refund on fees (reciprocities, certification and registration) .....	94.50
Secretary salary .....	3,050.00
Office rent .....	180.00
Board members salaries and expenses to meetings .....	1,603.30
Printing (directories, office stationery, etc.) ....	829.35
Postage and express .....	122.35
Expenses to Federation of State Board meeting for four members .....	400.00
Office supplies .....	7.93
Bank exchange .....	8.77
Refund—Dr. Kosminsky—bank expenses charged to personal account .....	20.00
Repair on typewriter .....	15.00
Adding machine .....	165.00
Social security .....	18.50
State Federation Board dues .....	25.00
	<hr/>
	6,539.70

Cash in bank June 5, 1946 .....	6,307.90
Receipts June 5, 1946, to June 5, 1947 .....	8,722.87
	<hr/>
	15,030.77
Total disbursements .....	6,539.70
	<hr/>
Balance on hand June 5, 1947 .....	8,491.07

RECEIPTS AND DISBURSEMENTS FROM JUNE 15, 1945, TO JUNE 5, 1946

Cash on hand June 15, 1945 .....	\$ 3,877.11
Receipts:	
Reciprocities .....	1,675.00
Certifications .....	945.26
Primary examination .....	900.00
Final examination (last two years) .....	1,110.00
Final examination (four years complete) .....	375.00
Registration fees .....	3,379.47
Duplicate licenses .....	50.00
	<hr/>
Total income since June 15, 1945 .....	8,434.73
Total receipts and amount in balance .....	12,311.84



## Disbursements:

Refund on fees (reciprocities, exams and registrations) .....	157.00
Secretary salary .....	2,587.50
Office rent .....	172.50
Board members salary and expenses to Board meetings .....	1,265.30
Printing .....	162.79
Postage .....	89.35
Office supplies .....	6.76
Bank exchange .....	25.10
Savings bond .....	740.00
Dr. Hoyt Allen (Hummel case) .....	500.00
Secretary and president expenses to meeting of Federation of State Boards .....	225.00
Federation of State Board dues .....	25.00
Moving Records from Harrison, Arkansas .....	32.14
Social security .....	15.50
<b>Total disbursements .....</b>	<b>6,003.94</b>
<b>Total receipts and amount in balance .....</b>	<b>12,311.84</b>
	<b>6,003.94</b>
<b>Balance on hand June 5, 1946 .....</b>	<b>6,307.90</b>

## ARKANSAS CANCER COMMISSION

## C. A. ROSENBAUM, Secretary

The Arkansas Cancer Control Commission is nearing the completion of its third year, rounding out the period of infancy, with a record of rapid growth in the state's business of cancer control. Our course has been chartered by a definite plan, adopted by the Commission, July 2, 1947, focused toward the development of a complete practical program, including statistical services, educational activities and the provision of clinical facilities necessary for rendering adequate preventive, diagnostic and treatment services to the public.

## Designated Permanent Cancer Clinics

Emphasis this fiscal year has been directed toward the establishment and conducting of permanent cancer clinics, designated by the Commission as clinic groups competent in the diagnosis and treatment of cancer and providing adequate facilities for this purpose.

Four such tumor clinics are held weekly in Arkansas. They are the Bowie-Miller Counties Medical Societies Tumor Clinic at Texarkana; The Southeast Arkansas Tumor Clinic at Pine Bluff, housed in the Davis Hospital; tumor clinics meeting on alternating weeks at Sparks Memorial Hospital and St. Edward's Mercy Hospital, Fort Smith; and the tumor clinic, University Hospital, Little Rock. These are set up according to the Minimum Standard for Cancer Clinics, American College of Surgeons, with clinic director and basic and consultant staffs. Here medically indigent cancer patients, properly certified and authorized by the Commission, are accepted from surrounding counties. Financial aid is given these clinics by the Commission for the purchasing of needed equipment, paying for secretarial time as may be necessary and providing record forms necessary for keeping cancer records, approved by the American College of Surgeons, for records of systematic follow-up, and for a report of all cases to the Cancer Registry of the Arkansas Cancer Control Commission.

The Texarkana clinic, housed in the Bowie County Health Unit, began operation in July, 1947, and has averaged 10 new cases monthly, and 50 active cases carried over from the previous month. Already this clinic, financed in part by the Texas Division, American

Cancer Society, and the Arkansas Cancer Control Commission, has been recommended for approval by the American College of Surgeons.

## Central Cancer Registry

The Tumor Clinic, University Hospital, which has American College of Surgeons approval, sees an average of 35 new patients and 56 return patients (recurrence and check-ups) monthly. Here two full-time cancer case recorders, members of the Commission's personnel, also serve as secretaries for the Tumor Clinic. Here a good start has been made in setting up the Tumor Clinic Registry, according to the tumor records used by Memorial Hospital, New York City, the Connecticut State Board of Health and several other states. These tumor records are the foundation for the Central Cancer Registry in the Commission office, where the detailed information on these records is to be assembled, coded and transferred to punch cards by machine.

In addition to these tumor records, an alphabetical index cross card file and an anatomical index card file, based on Memorial Hospital nomenclature of diagnoses, is kept. An index of pathological diagnoses has also been established to meet the special interests of clinicians directing the work of the Tumor Clinic at University Hospital. A follow-up system is also an important function of the Tumor Clinic office.

The Commission will assist all Tumor Clinics in the state in setting up their own tumor registries, which in turn will transmit their information to the Commission's Central Cancer Registry. Valuable statistical studies on cancer in Arkansas will be our objective and it is hoped that statistical research will result.

## New Permanent Cancer Clinics

In keeping with the Commission's plan to promote the establishment of additional tumor clinics, strategically located throughout the state, it is hoped that such organizations will soon be perfected at Jonesboro and El Dorado. Qualified personnel in the fields of surgery, internal medicine, radiology and pathology, as well as Medical Society leaders in Craighead and Union counties have indicated their interest in having tumor clinics established in these areas.

When these two additional cancer clinics become a realization, the referral of patients through the Commission office can be expedited with more efficiency, and areas now served by our existing tumor clinics may be reduced in size. This will not only help to distribute the patient load throughout the state, but will be a consideration in transportation problems of the cancer patient.

## Training

The Commission has made funds available for short postgraduate refresher courses for members of the medical profession serving in designated diagnostic and treatment clinics.

Last summer a Pine Bluff surgeon worked with Adair at Memorial Hospital, New York. In March, two pathologists of the state, from Fort Smith and Little Rock, respectively, attended Dr. Papanicolaou's Course in Cytologic Diagnosis of Cancer at Cornell University Medical College, New York City, for two weeks. Also in March, a radiologist and surgeon, both members of your Cancer Commission, attended the postgraduate course on cancer, given by the American College of Radiology in Chicago.

## Education

In order that more emphasis may be placed on cancer control within the county medical societies, the Commission has gone on record as being ready to cooperate



with the Post-Graduate Training Committee of the Arkansas Medical Society in planning definite programs and in securing special speakers for meetings devoted to cancer.

A general basis for community organization for lay education in cancer control has been established in the state by the Arkansas Field Army, American Cancer Society, with distribution of literature on cancer, sponsoring diagnostic clinics in various counties, conducting the annual campaign for funds in April, and sponsoring the cancer control education in the schools. The Commission cooperates in this program of lay education.

#### **Cancer Detection Center, U.S.P.H.S., Hot Springs**

The only full-time Cancer Detection Center in the world is being operated by the United States Public Health Service in Hot Springs, with the project limited to case finding and follow-up services. A detailed evaluation of the cytologic test for cancer is being carried out. The cost and time of performing the test will be determined as well as the relative cost per cancer case and the accuracy when compared with other diagnostic methods.

All indigent cancer and cancer suspect cases found at the Hot Springs Detection Center become the responsibility of the Cancer Commission, and patients are referred to the designated clinic most accessible to the patient's home. Records show that from November 13, 1946, through April 1, 1947, out of the 1,208 women and 28 men examined at this detection center, 19 were definitely diagnosed, as cancer.

The State Health Department is cooperating in this project by a follow-up through the county health nurse, when a patient fails to report at a clinic as prearranged, and when the Commission receives no report on an indigent patient that has requested referral be made through his private physician.

This is an opportunity for Arkansas to make a unique contribution, and to demonstrate the coordination of various agencies, groups and individuals in a big overall objective, cancer control. Impetus for this undertaking is furnished by the National Cancer Institute, Bethesda, Md.

#### **Grants-in-Aid for University of Arkansas School of Medicine**

The National Advisory Cancer Council, which is a part of the National Cancer Institute, is recommending increased grants-in-aid to universities, medical schools and other institutions throughout the country to assist them in developing greatly expanded cancer research and training programs.

Last month the University of Arkansas Medical School received approval of a grant for the purchase of a 400 KV supervoltage therapy unit, plus installation cost, and a grant for an assistant radiologist, X-ray technician and a secretary with a net total of \$37,300.

The Cancer Commission and the United States Public Health Service have concurred in the feeling that X-ray therapy equipment and personnel necessary for its operation constituted the principal bottleneck in the Tumor Clinic procedure at University Hospital. These grants should materially strengthen the physical facilities at the University of Arkansas School of Medicine, thereby giving better service in the furtherance of cancer control in Arkansas.

In December, 1947, a grant of \$23,325 was awarded by the National Cancer Institute to the University of Arkansas School of Medicine for establishing a Department of Oncology (the study of tumors). Plans for the use of these funds call for a special unit on cancer

education, including instructors, clerical help and visual aids necessary to extend the existing cancer teaching program to medical students and doctors in communities throughout the state.

These grants-in-aid to our state medical school should expand greatly the attack on Arkansas' cancer problem and serve as new tools by which cancer morbidity and mortality can be reduced.

#### **Growth of Agency**

With an ambitious program the objective, we have grown from an agency that processed applications of 64 indigent cancer patients and administered the spending of \$5,006.65 in its first fiscal year, 1945-1946, to a big business that has authorized care for 510 cases with an expenditure of \$20,869.80 the first nine months of its third fiscal year, which concludes June 30, 1948. During our second year, 1946-1947, applications for 451 patients were received at the Commission office and \$24,186.12 was spent for hospitalization and care. A graph picture of these figures, depicting the patient load and expenditure of state appropriated funds for hospitalization, reveal at a glance that applications for funds have increased over 13 per cent since the Commission was established in 1945, but the same amount of money, \$25,000, has been appropriated biennially by the General Assembly to meet this phase of the program.

It is true that our cancer grant-in-aid funds from the United States Public Health Service may be used for paying all diagnostic costs including hospitalization of up to three days, but state funds are used beyond this period.

If the State of Arkansas is to continue paying for the hospitalization of the indigent cancer patient, more money must be appropriated, and \$100,000 would not be a large amount to set aside for this service. When our legislature meets in January, the appropriation for the State Cancer Control Commission should be of primary consideration.

With the beginning of the new fiscal year, July, 1948-49, our state appropriation will again be \$25,000. In order to make this last throughout the year, strict policy will have to be carried out as to its administration, preventing the Commission from authorizing any funds for terminal care and cutting down the number of hospital days to a minimum.

Hospitalization of medically indigent cancer patients would have ceased the first of March until the new appropriation of state funds this July had it not been for an exchange of approximately \$5,000 between the Arkansas Division, American Cancer Society, and the Arkansas Cancer Control Commission, whereby some of the Commission's grant-in-aid federal funds set aside for lay information materials could be directed to the Cancer Society for such use, and that organization in turn could make their funds available for hospitalization. This budgetary maneuver was necessary since the rules and regulations of the United States Public Health Service do not permit the use of federal funds for prolonged hospitalization—this is considered the responsibility of the state.

The increased sensitization of the medical profession to cancer coupled with the lay information program of the American Cancer Society has resulted in a greater case load than was anticipated in the Commission's hospitalization program.

Our state Cancer Society has been cooperative in providing transportation and domiciliary care for clinic patients. At the University Hospital Tumor Clinic, 73



patients benefitted from this service at a cost of \$1,905.57, between September 15, 1947, through March 15, 1948. Fifteen of these 73 patients received funds for out-patient care, 21 had their transportation paid, and 37 received both.

We have made a beginning, a good beginning. The great need for our program has been proven. The layman is eager to play his part in cancer control, whether it be consulting his physician, visiting a clinic at the first appearance of cancer symptoms, or helping to educate his fellowman that there are cancer danger signals which if heeded may save life.

**Conclusion: "Every Doctor's Office Should Be a Cancer Detection Center"**

In conclusion I would like to quote from "The Texas Cancer Bulletin," a cooperative venture financed by the Texas Cancer Coordinating Council in which the principal agencies concerned with cancer control in that state are represented: The Cancer Committee of the Texas State Medical Association, the Texas State Department of Health, the State Cancer Hospital, the M. D. Anderson Hospital for Cancer Research and the Texas Division of the American Cancer Society.

This well edited and unusually attractive booklet points out in its initial issue of January and February: "Every doctor's office should be a cancer detection center. Although roentgenological and laboratory studies are essential to the proper diagnosis of some forms of cancer, these procedures are by no means necessary for the observation and recognition of many neoplastic lesions. Precancerous or cancerous symptoms often may be recognized by the instruments which the general practitioner either wears or carries in his kit. He needs eyes, ears, fingers and an inquiring mind and will. Given these God-granted attributes and a small handful of instruments, the family doctor will see, hear and feel the symptoms of cancer long before the patient finds his way to a specialist. Upon the shoulders of the family doctor, then, rests the responsibility of recognizing the symptoms of cancer while it is still amenable to treatment.

"The wise practitioner will call in consultant help—the diagnostician, the pathologist, the roentgenologist, the specialists in various surgical fields. The general practitioner does yeoman's service, in screening the interested public in picking up many significant clues that lead to cure. Why should he hesitate to ask the specialist to interpret a doubtful symptom?

"With all of our united efforts at detection and early and enlightened treatment, we can but with difficulty hold our own against the increasing incidence of cancer in our aging population. The problem is too great, really, for any existing organization or group of organizations. But when every family doctor in the land becomes acutely sensitive to the public's need for cancer control, we will get results.

"We will get results when every doctor's office becomes a cancer detection center."

Following the report President Evans read a letter from Mr. Allan Gates, Campaign Director, Arkansas Division, American Cancer Society, stating that a booth had been placed in the meeting hall to receive contributions from members present in the annual Cancer Campaign Fund.

## DELEGATE TO THE AMERICAN MEDICAL ASSOCIATION

D. A. RHINEHART, Chairman

The interim session of the House of Delegates of the American Medical Association was held in Cleveland January 5 to 8. This was the first time a scientific program for general practitioners was included as a part of the meeting. The attendance was not as good as expected. The extraordinary gathering at the Atlantic City Centennial in June, the meeting so soon after the holidays and the bad weather throughout the East, particularly the well-publicized snowstorm in New York City, all contributed to the small attendance.

The first action of the House of Delegates was the selection of the man to receive the first general practitioners award offered by the Association. Approximately 180 nominations were made for this award. These were screened by the Executive Committee of the Section on General Practice and five names were given to the Board of Trustees. Of these the trustees selected three to be presented to the House of Delegates: W. L. Pressly, Due West, S. C.; Jacob T. Oliphant, Farmersburg, Ind., and Arthur C. Sudan, Kremmling, Colo. Dr. Sudan was chosen by the House of Delegates, and the medal was presented to him by Federal Security Administrator Oscar C. Ewing.

At the first session the delegates heard addresses by the President, the Speaker of the House and received the report of the Board of Trustees. Because of increased costs of operation and increased activities, the fellowship dues including subscription to the Journal of the American Medical Association were raised to \$12 per year.

The report of the Board of Trustees included that of a special committee of the Board that has had under consideration various resolutions that have passed the House of Delegates concerning the practice of medicine by hospitals, particularly in the fields of radiology, anesthesiology, pathology and physical medicine. Provision was made for the appointment of a committee by the Board to study these resolutions and to arrange conferences with interested groups and individuals in order that a solution could be worked out that is fair to all parties and to the public.

The report of the Board of Trustees included the progress made toward the formation of a World Medical Association at a meeting held in Paris during September, 1947, at which 48 nations were represented. The headquarters of the Association will be in New York City.

The House of Delegates adopted rules and order of business to expedite its business. The Committee on Nursing Problems reported that several meetings had been held with representatives of nursing organizations, the American College of Surgeons and the American Hospital Association. To provide immediate relief nurses that have retired are being urged to resume practice. Editorials, articles, radio plays, etc., have been provided to stimulate the recruitment of student nurses. There are plans for a grade of nurse below that of professional nurse, for the employment of practical nurses, for the training of attendants, and for relieving nurses of work that can be done by other personnel. The study also included such steps as may be taken to make nursing a more attractive profession from its economic side, such as social security benefits, retirement funds, etc.

The Council on Medical Service reported on its



multitudinous activities. "Community leadership in health problems by county medical societies and state medical associations will be the goal of the Council for 1948." The Council has attempted to inform the profession of activities and trends in medical care. It has held 16 regional conferences. It mails a monthly news letter to 3,500 physicians. It held a Veterans Administration home care conference in November to which 99 representatives from 43 states were present. It has made a special study of the activities of county medical societies in the field of medical service and it has continued its activities in the various voluntary prepayment medical care plans that are having such a rapid growth in all parts of the country.

Other subjects that were brought to the attention of the House of Delegates were the unequal distribution of interns in approved hospitals, the X-ray examination of the chest in tuberculosis case-finding, the examination of immigrants before embarkation for this country, and approval in principle of the Red Cross blood bank program, stating that the "responsibility for technical details must rest on properly trained personnel under the control of local and state medical societies."

The President in his message to the House mentioned a plan for medical student affiliate membership in the Association and stressed the importance of the activities of the Council on National Emergency Medical Service, pointing out the importance of activities in this field by state and county medical societies. He complimented the activities of the Woman's Auxiliary and reported progress in preliminary plans for a new building for the Association.

Perhaps the most inclusive report made to the House of Delegates was that of the Board of Trustees on progress toward accomplishment of the 10-point national health program of the Association. This appeared in the January 24, 1948, issue of The Journal of the American Medical Association and should be compulsory reading for every physician in the United States.

In closing, I wish to call your attention to a recent publication. This is the "Handbook of the American Medical Association," a copy of which was recently sent you by the secretary of this Society. You should take the time to carefully read this booklet. It will give you concise information about the organization and functions of the Association, what the Association is doing for you as a physician, and what aid and assistance the Association is able and willing to provide for you individually, just for the asking.

The next meeting of the House of Delegates will be in Chicago June 21-25 and the next interim session with a scientific program for general practitioners will be held in St. Louis November 30-December 3.

REPORT OF THE COUNCIL

EUCLID M. SMITH, Chairman

The Council met on November 16, 1947. The action taken and the recommendations made are herewith submitted to the House of Delegates, and are as follows:

- (1) Approved the training program of medical assistance by the University of Arkansas School of Medicine.
- (2) Approved the plan for continued operation of the blood bank at the Medical School. The plan was submitted by the University of Arkansas Medical School authorities.
- (3) Authorized an Arkansas headquarters at the Chicago session of the American Medical Association in June, 1948.

- (4) Resolved to recommend to the House of Delegates that a 50-Year Club be formed.
- (5) Appointed L. H. McDaniel and Gordon P. Oates to study the National Physicians Committee and make their recommendations to the Council.
- (6) Retained L. J. Kosminsky in office as delegate to the American Medical Association for the Cleveland session in December, 1948.

At the meeting of the Council on March 21, 1948, the following recommendations were made:

- (1) That in submitting legal questions to the legal department of the Arkansas Medical Society, it is recommended that these questions come only through the respective county medical societies to the state secretary with further approval by the chairman of the Council, the president, and the counselor of the particular district involved.
- (2) Accepted a report of a special committee recommending the employment of an executive secretary.
- A great deal of work was done by this committee and the Council feels that a special commendation should be given them for their tireless efforts as members of this committee.
- (3) Received a financial report from the State Medical Examining Board of Arkansas Medical Society, a copy of which is hereto attached.
- (4) Approved for submission to the House of Delegates a resolution of the National Physicians Committee, a copy of which is hereto attached.

REPORT OF THE TREASURER

PAUL L. MAHONEY

Balance, April 1, 1947:	
Treasury bonds .....	\$11,400.00
Bank account .....	7,951.01
	<hr/>
	19,351.01
Receipts:	
From secretary .....	12,500.00
Interest—Treasury bonds .....	285.00
	<hr/>
	12,785.00
	<hr/>
	32,136.01
Disbursements .....	18,234.26
Balance, March 31, 1948:	
Treasury bonds .....	11,400.00
Bank account .....	2,501.75
	<hr/>
	13,901.75
In hands of secretary for transfer to treasurer....	25,620.11
	<hr/>
Total balance, March 31, 1948 .....	39,521.86

REPORT OF THE SECRETARY

W. R. BROOKSHER

On this date 1,051 members have paid the 1948 membership assessment, a figure in excess of the usual paid membership at this time. It is apparent that the action of the Society in increasing the membership assessment has met with the general approval. One may confidently expect the total 1948 membership to attain a record number.

The past year has seen a continuation of the multifold activities of the Society, activities which continue to expand and extend in ways that are difficult to prophesize. The relations of physicians, the public and the government are more interrelated each day and the



satisfactory and equitable solution of these many problems requires unceasing study and effort on the part of the individual physician and the organization. The affairs of the Society as they are involved by relations with other agencies, state, federal and public have been discussed in the various committee reports.

With the approval of the House of Delegates the Council has selected an executive secretary who will begin his duties with the Society after a short interval. It is contemplated that he will receive training in offices of other state societies now maintaining a full-time office in order that he may obtain a better understanding of the situation here.

With the advent of a full-time secretary, it is obvious that the Society is about to embark on a broadened field of endeavor. This suggests the desirability of a study of the committee organization and functions of the Society. Certain committees no longer serve the purpose for which they were created; others have divergent aims; perhaps additional committees should be appointed. It seems proper that the House of Delegates authorize a study along these lines.

The Journal enjoys a prosperous advertising support from its many advertisers. Cordial reciprocity of the members with the advertisers and with the firms who exhibit at the annual session is an obligation.

We again express our heartfelt appreciation for the support and assistance which has been so freely given us by members and officers in every activity of the organization.

Hon. Carl E. Bailey, Counsel, addressed the Society briefly on various legal problems which had come to his attention during the year.

## REPORT OF THE AUXILIARY TO THE ARKANSAS MEDICAL SOCIETY FOR 1947-48

L. K. HUNDLEY, Chairman

The Auxiliary to the Arkansas Medical Society presents with pleasure its achievements for the year 1947-48.

Due to the interest and untiring efforts of all state chairmen and county presidents, with the cooperation of each individual member, the Auxiliary is able to report gains in all activities in which it participates.

One new auxiliary was organized (Columbia County with 14 members). Hempstead reports reorganization of its auxiliary. We now have 534 members, a net increase of 31 members over last year. There are 30 counties which are organized or are component parts of organizations. It is regretted however, that there are still about 50% of the eligible members who have not joined the auxiliary.

There was a 31 per cent increase in hygeia credits over last year, with 301 total credits reported. Union County rated sixth with 312 per cent in group two, of the National Hygeia Contest.

Subscriptions to the Bulletin almost doubled that of 1946-47, the chairman reporting 75 subscribers.

A total of \$294.50 was contributed to the Student Loan Fund, which was more than twice the amount reported for 1946-47.

Contributions in amount of \$762.56 were made to Erle Chambers Memorial Library Fund.

Doctors' wives served their communities by serving on health committees in other women's organizations, in cancer drives and clinics, T.B. clinics, Red Cross, polio, crippled children, and Community Chest drives, blood plasma and mosquito control programs, nurses' recruit-

ment, hospital boards, in providing layettes for hospitals, assisting in bringing cheer to underprivileged at Christmas, and sponsoring emergency room at convalescent home.

Special study was given to the Arkansas Health Plan, and to all legislation pertaining to the doctor, and also talks were given at meetings pertinent to community needs.

It is suggested and urged that all county medical societies assist in the formation of an Auxiliary in their county. If that is not feasible, then the next best thing is to pay dues of \$1 for their wives, to become members-at-large.

## COMMITTEE ON CONTROL OF SYPHILIS

L. G. MARTIN, Chairman

(Read by the Secretary)

Generally speaking, the Venereal Disease Control Program of the Arkansas State Board of Health during the year 1947 was continued along previously established lines and policies through the re-emphasis on early case finding and the institution of adequate treatment as early as possible. Through the further development of penicillin therapy in both the treatment of syphilis and gonorrhea, many more cases completed adequate treatment within a comparatively short period of time.

During the year, an average of 52 local health department venereal disease diagnostic and treatment clinics continued to function. Local health departments were again urged to refer as many cases of V.D. as possible to private physicians and the Medical Center located in Hot Springs, Arkansas, for evaluation study and adequate treatment. Many cases of V.D., especially syphilis, were referred to the Medical Center in Hot Springs, Arkansas. A large number of these cases received adequate treatment through the combined penicillin, arsenic and bismuth therapy within a period of nine days. During the year, a monthly average of approximately 1,000 suspects, contacts and diagnosed cases of venereal disease were referred or transferred to the Medical Center by private practicing physicians and local health departments throughout the state.

On July 1, 1947, the new project entitled Delta Plantation Mass Blood Testing Survey was established. This special project, before establishment, was approved by the Arkansas State Medical Society and before the survey teams entered a county to establish the program, the project was approved and endorsed by the local county medical societies as well as the local unit of Arkansas Farm Federation Bureau and other recognized civic organizations. By the end of the year, the survey teams had completed the survey in St. Francis, Cross, Crittenden and Mississippi counties. A total of 30,000 blood specimens were procured of which approximately 4,800 were positive for syphilis and 2,400 were doubtful. Many of the 4,800 individuals with positive tests were referred to the Medical Center or to private physicians for an evaluation study and adequate treatment. This type mass blood testing program in the rural areas of eastern Arkansas is proving to be very popular with individuals as well as the plantation owners and civic leaders in the various communities. The various county medical societies have also expressed keen interest in the program and have given their wholehearted support. All cases of syphilis and gonorrhea referred to the Medical Center by local health departments, private physicians and the Delta Plantation Survey Team receive penicillin therapy supported with other recognized drugs



and compounds. It seems that modified penicillin therapy is rapidly replacing the older recognized schemes of therapy. The chief reasons for this are: (1) Penicillin therapy in both gonorrhea and syphilis is far more effective than the older schemes. (2) Adequate treatment is reduced from 52 weeks to nine days for syphilis and the treatment of gonorrhea is so rapid and effective that a cure is practically assured in 85% of the cases by one injection of 300,000 units penicillin in oil and beeswax and the second injection, 24 to 48 hours later, will assure a cure in practically all of the remaining 15%. (3) Practically all cases of syphilis receiving the rapid penicillin treatment complete adequate treatment whereas under the old established scheme of treatment through overlapping courses of arsenic and bismuth on a weekly basis, only 16 to 20 per cent ever completed adequate treatment.

During the year 1947, the following cases of venereal diseases were reported and placed under treatment for the first time by private physicians and local health departments.

Reported V.D., Arkansas, 1947

Source of Report	Pri. & Sec.	Early Latent	Late & Cong. L. L.	Gonorrhea
Private Physicians .....	702	870	661	82
Local Health Depts. ....	2,166	4,500	4,733	672
Total .....	2,868	5,370	5,394	754
Source of Report		Chan-croid	Gran. Ing.	Lympho Gran.
Private Physicians .....		23	6	11
Local Health Depts. ....		196	36	204
Total .....		219	42	215

During the year 1947, 181,546 blood specimens for syphilis, 8,380 smears for gonorrhea and 8,359 cultures from private physicians and local health department clinics were processed by the State Hygienic Laboratory.

Since Act 71, the Pre-Natal Law, which was approved and adopted early in 1947 by the General Assembly, became effective on July 1, 1947, we have every reason to believe that since the institution of this basic health law, that congenital syphilis in the new born is being prevented to an appreciable degree. We feel that in years to come, with the excellent cooperation of the private physicians as well as expectant mothers that the incidence of congenital syphilis will show a marked decline. With only two or three exceptions, licensed physicians of the state are cooperating wholeheartedly in the requirements of this act. We sincerely feel that the Pre-natal Law is an excellent educational instrument to the physicians of the state as well as to the general public.

A state Pre-Marriage Law, bringing about the detection and prevention of syphilis prior to marriage, is essential in the control of syphilis. Arkansas is now one of only 10 states in the United States that does not have this much desired and needed basic health law.

By motion (Fletcher-Hoyt Allen) the following constitutional amendment, proposed at the 1947 annual session, was adopted:

Article XI—In the second sentence, to substi-

tute the figures \$25.00 for \$5.00.

By motion (McDaniel-Land) the following amendment to the by-laws, proposed at the 1947 annual session, was adopted:

Chapter IV, Section 2—To add an additional sentence reading: "The Section on Ophthalmology and Otolaryngology shall be represented in the House of Delegates by one delegate."

L. H. McDaniel read the following resolutions which were referred to the Reference Committee.

Whereas, The Arkansas Medical Society and its individual members recognize the importance of the aggressive efforts of the National Physicians Committee in preserving freedom and liberty in the American Way of life; and

Whereas, The well planned program of the National Physicians Committee has been a vital factor in maintaining the private practice system which is vital to the concept of personal liberty; and

Whereas, The public as a result has not only been generally enlightened on the contributions, achievements, and true aims of the medical profession in the United States, but has also been warned of the dangers to the public health implied in the subtle campaign which would discredit the doctor, therefore

Be It Resolved: That the House of Delegates of the Arkansas Medical Society affirm its confidence and approval of the National Physicians Committee activities and recommend to its constituent societies and individual physicians of Arkansas that they give the greatest possible financial and moral support to the National Physicians Committee.

Whereas, The present situation is discouraging for organized medicine in our nation unless the medical profession immediately increases and accelerates its opposition to the trend to bureaucracy; and

Whereas, The Association of American Physicians and Surgeons has been organized with the purpose of organizing physicians so that we may determine and enforce the conditions under which we will practice so as to maintain our high standard of service; and

Whereas, We feel that the Association of Physicians and Surgeons can, and does represent our interests, therefore

Resolved, That the Arkansas Medical Society go on record as thoroughly endorsing the work of the Association of American Physicians and Surgeons.

The House then proceeded to select the following Nominating Committee: First District, L. H. McDaniel; Second District, O. J. T. Johnston; Third District, S. A. Drennen; Fourth District, H. T. Smith; Fifth District, J. B. Wharton, Jr.; Sixth District, M. L. Norwood; Seventh District, Geo. B. Fletcher; Eighth District, Chas. R. Henry; Ninth District, O. B. McCoy; Tenth District, Earle H. Hunt.

The House then adjourned.

## FIRST GENERAL SESSION

April 15, 1948

The meeting was called to order by President Evans.

The invocation was given by Rev. Sam F. Free-



man, Pulaski Heights Christian Church, Little Rock.

The address of welcome was given by Henry G. Hollenberg, President, Pulaski County Medical Society.

J. J. Monfort, Batesville, responded to the address of welcome.

The scientific program then followed in order. "The Control of Mortality in Thyroid Surgery," J. Harry Hayes, Little Rock.

"Tetanus," J. J. Monfort, Batesville.

"The Surgical Management of Congenital Malformations of the Anorectum," Harry E. Bacon, Philadelphia. Dr. Bacon was introduced by Hoyt R. Allen, who presented him with a certificate as an Arkansas Traveler.

"Common Disorders of the Lower Female Genital Tract," Leston E. Fitch, Crossett (Lantern slide demonstration).

"Cancer of the Pancreas," Richard B. Cattell, Boston. (Lantern slide demonstration). Dr. Cattell was introduced by Dr. Hollenberg.

"The Arkansas Health Plan," M. J. Daugherty, Little Rock.

#### April 15th, 1948

The Pulaski County Medical Society was host at a Social Hour held in the Continental Room, Hotel Marion, from 6:30 to 8:00 P.M.

### SECOND GENERAL SESSION

April 16th, 1948

9:00 A.M.

The meeting was called to order by President Evans, and Vice-president T. D. Brown took the chair.

The following scientific program was presented:

"Urology in Relation to the Other Specialities," H. King Wade, Jr., Hot Springs National Park (lantern demonstration). Discussed by Brown, Suggs, Fite, H. Fay H. Jones and H. King Wade.

"Useful X-ray Procedures in Everyday Practice," George C. Burton, El Dorado (lantern demonstration). Discussed by B. A. Rhinehart and Ed. F. Gray.

"Cancer of the Rectum and Pelvic Colon," Harry E. Bacon, Philadelphia.

"The Rationale of Surgical Treatment of Ludwig's Angina," Robert Hipsley, Crossett (lantern demonstration).

"Peptic Ulcer: Present Surgical Concepts," Thos. P. Foltz, Fort Smith (motion picture).

### MEMORIAL SESSION

April 16, 1948

The meeting was called to order by President Evans at 11:40 A.M.

The invocation was given by Rev. R. Wilbur Herring, Calvary Baptist Church, Little Rock.

A musical selection, "My Heart Ever Faithful," was given by Mrs. Purifoy Gill, accompanied by Mr. John Summers.

Mrs. C. E. Kitchens read the names of the deceased members of the Auxiliary.

The Secretary read the names of the following deceased members:

### IN MEMORIAM

Alva A. Garratt, Pine Bluff, March 5, 1947.

Robert P. Woods, Altheimer, May 9, 1947.

John R. Kitley, Mayflower, May 19, 1947.

Edgar S. Whaley, Carlisle, June 13, 1947.

James H. Benefield, Fort Smith, July 10, 1947.

Herbert H. McAdams, Jonesboro, July 11, 1947.

Arthur G. Henderson, Imboden, July 24, 1947.

Aris W. Cox, Helena, July 29, 1947.

Curtis H. Kennedy, Fort Smith, August 5, 1947.

John M. Proctor, Hot Springs, August 9, 1947.

William A. Craig, Eudora, August 10, 1947.

Henry B. Hull, Mammoth Spring, August 28, 1947.

William M. Wear, Paris, August 30, 1947.

Thomas L. Savin, Little Rock, October 3, 1947.

Ruffin Longest, Wynne, October 16, 1947.

Albert H. Mann, Texarkana, October 16, 1947.

Clarence Finney, Maynard, October 23, 1947.

William H. Martin, Holly Grove, October 25, 1947.

Floyd Clardy, Hot Springs, November 21, 1947.

Albert M. Elton, Newport, December 10, 1947.

Mardelle Y. Pope, Monticello, January 22, 1948.

Thomas A. Peterson, Wynne, February 3, 1948.

Thomas C. Guthrie, Smithville, February 11, 1948.

Edgar Close, Jerusalem, March 15, 1948.

Walter L. Boswell, Clarendon, March 16, 1948.

L. H. McDaniel, Tyronza, gave the memorial address.

(Flowers sent in memory of Dr. H. B. Hull).

### MEMORIAL ADDRESS

Another year has passed since our Memorial Services twelve months ago when we paid our humble and heartfelt respects to those physicians of our group who had responded to that eternal summons that knows no refusals and accepts no delays; another year with its sunshine and its shadows, its laughter and its tears, its sowing and its reaping, its cradle songs and funeral hymns has passed bringing each one of us here today nearer the fateful hour when we too will join that lamented group of honored physicians and brothers in the profession whose names our good secretary has just read to you. Surely the few moments we ponder on the lives, the accomplishments, and the achievements of that group whose earthly endeavors have been laid down, leaving us the memories of those lives of service to their fellowman or recollections of their tenderness to those in pain or distress, surely I say those moments spent in the reverence and honor of our departed brothers are moments that



should be cherished forever.

The list as read by our secretary contained the names of many of my warm personal friends, several were known only by their high reputation for their deeds of skill or their kindness toward the patient in pain or sorrow, while one name designated one of the greatest souls in Medicine that America has ever produced, a man who practiced the healing art nigh unto three score years and ten, whose greeting was an inspiration and whose presence was a benediction, that saintly character whose annual visit in my home left me filled with an ever increasing determination to try to be worthy in my humble way of that word "physician." Nor would I have you believe that any of those other physicians we are honoring today fell one jot or tittle short of that Christian gentleman, that true philosopher, and that wise physician whose life and whose departure from life left such an impression upon me. I am sure that had I known every one of those other physicians as intimately as I did Dr. Henderson, that they too would have made a similar impression upon my mind and heart.

May I not tell you a true story, for truth is always stranger than fiction, that so aptly describes the noble physician who puts service to humanity above personal gain or glory. The story has it that a very fine person who was a doctor lived in the suburban section of the City of New Orleans. He did a great deal of practice for poor French people of that city. But he did not always reside in the suburban section or certainly did not have his office out there. He had his office in one of the most up-to-date office buildings in downtown New Orleans for some years and enjoyed one of the very best practices in the city. His patients during that period of his life were from the richest families in that city. He made large amounts of money and saved a great deal of it.

He was a Christian gentleman. He became very much interested in the poor of the city and began by giving a part of his time and ability to the poor who could not pay him. As time went on, he gave more and more of his time to the poor and often neglected his other practice. His paying practice began to leave him. He, in time, lost his paying practice and began to spend his savings. He moved his offices into less expensive space in the office building, and later on moved into still less expensive space and finally moved his offices out in the suburban section up over a corner grocery store with steps on the outside of the building leading up to his offices. His practice then was almost all charity.

He had a sign printed on tin and tacked on the lifts of the steps leading up to his office. The sign read "Dr. M. E. Moffett—Office Upstairs." He never tried to stage a come-back with the rich. He finished his mission on earth with the poor who paid only small and occasional fees. He died wholly without funds and was buried in an unmarked grave.

A group of the poor but appreciative people for whom he had rendered valuable service, and headed by a poor woman for whose son he had performed an operation and corrected a club foot, went about trying to collect funds to purchase a small marker for his grave. They worked long hours and hard to this end, but could not get enough money to erect even the most modest marker, so this lady for whom he had performed the operation on the foot of her son conceived the idea that she would go back to the store over which his office had been located and which building was then vacant both upstairs and down, and take a portion of the old steps and take them to his grave as a marker. This she did with the aid of two small boys.

She took an old hand saw and sawed off a section of the steps and nailed two upright pieces on the steps and took that section of the steps to his grave and set it up at the head of the grave. On the top most lift of this section of the steps was one of the tin signs which read—"Dr. M. E. Moffett—OFFICE UPSTAIRS." He had moved his office from over the little old corner grocery to that "OFFICE UPSTAIRS." I have little doubt that this story applies to many if not all of the physicians we honor here today with this Memorial Service.

There is an old story of an artist who painted a picture that was touched with a lovely and fascinating crimson that no other artist was able to imitate. They studied this picture and sought for its secret in vain. But when the artist was dead and they were preparing him for burial they noticed above his heart a half-healed wound. Then it was that they understood. As this artist had painted he had dipped his brush into his own heart's blood. That was the secret of the winsome crimson they could not imitate. That was the secret of the fascinating picture that had cast its spell upon them. They could not paint as he painted because they were unwilling to pay the price he paid. This artist did not depend on personality, that quality that sometimes allows banana oil to take the place of elbow grease. I hold up to you, ladies and gentlemen, today this artist who was willing to sacrifice to make this world a little brighter, a little better, a little



more beautiful. May that same spirit be lodged in the breast of every physician here today, every Auxiliary member, and every other citizen of our land, and if it is, our nation can face any future with glorious anticipation.

A group of American tourists in Dublin, Ireland, passed three workers, each at a rockpile, scattered along the roadside a block apart. In order to make a happy conversation, our tourist friend said to the first man, "My good man, what are you doing?" Without looking up, and murmuring, Pat said, "Breaking rock." As he approached the second man, the tourist again plied his question, and the answer from Mike was that he was working for the equivalent of a dollar a day. As he approached the third man, who seemed to be watching his rock, rolling it over in his hands and measuring distances as he worked the tourist said, "My good man, what are you doing?" And the laborer replied, "Building a cathedral to the glory of God." Surely that group of departed brothers we honor today had each been "Building a cathedral to the glory of God."

My friends of the profession, "We, the physicians of Arkansas, have an obligation to uphold, an obligation to those great men of Medicine whose lives and services stand out so brightly in the history of Arkansas. We pledge ourselves to be true to the ideals of Frank Vinsonhaler, the greatest name in Arkansas Medicine, G. W. Warren, C. W. Garrison, Thad Cothorn, Ira Ellis, A. G. Henderson, R. H. T. Mann, Turner Wootton, Sid Wolferman, Sam Thompson, Val Parmley, C. M. Lutterloh, W. H. Bathurst, Morgan Smith, J. T. Altman, and many others just as deserving who are not mentioned for lack of time, that group of men who answered the call of duty to palace and hovel alike, that group of men who heard secrets and confessions not breathed to other mortals, that group of men who were so often called upon to whisper consolation to some poor suffering soul on the brink of this earthly silence, that group of men who were trusted with everything mortal that this life affords, that group of men who labored through love under a system we know as Medical Ethics, the ideals of which are not surpassed by any organization, religious or otherwise, that system which in its ultimate analysis is but a continuation of the Sermon on the Mount by The Great Physician, that One who ever directs the internists diagnosis or the surgeons hand. Gentlemen of the profession, if every physician attending this meeting rededicates his life to the ideals of those

great men named a moment ago this meeting has been well worthwhile.

May we daily and hourly answer the call of duty to our fellowman in pain or sorrow. May we ever be alert lest we overlook some wound that needs to be healed, some bruise that needs to be soothed, some fevered brow that needs to be cooled, some despondent heart that needs to be revived, some troubled mind that needs to be cheered. May we not sum up our attitude as did that great doctor's poet, Gresham, as he says:

#### LET ME WALK WITH THE MAN IN THE ROAD

(The Doctor's Poem)—Walter J. Gresham

'Tis only a half truth the poet has sung

Of the "house by the side of the way";

Our Master had neither a house nor a home,

But He walked with the crowd day by day.

And I think, when I read of the poet's desire,

That a house by the road would be good;

But service is found in the tenderest form

When we walk with the crowd in the road.

So I say, let me walk with the men in the road,

Let me seek out the burdens that crush;

Let me speak a kind word of good cheer to the weak

Who are falling behind in the rush.

There are wounds to be healed, there are breaks we must mend,

There's a cup of cold water to give;

And the man in the road by the side of his friend

Is the man who has learned to live.

Then tell me no more of the house by the road,

There is only one place I can live—

It's there with the men who are toiling along,

Who are needing the cheer I can give.

It is pleasant to live in the house by the way

And be a friend, as the poet has said;

But the Master is bidding us, "Bear ye their load,

For the rest waiteth yonder ahead".

I could not remain in the house by the road

And watch as the toilers go on;

Their faces be clouded with pain and with sin,

So burdened, their strength nearly gone.

I'll go to their side, I'll speak in good cheer,

I'll help them carry their load;

And I'll smile at the man in the house by the way,

As I walk with the crowd in the road.

Out there in the road that goes by the house,

Where the poet is singing his song;

I'll walk and I'll work midst the heat of the day,

And I'll help falling brothers along—

Too busy to live in the house by the way,

Too happy for such an abode;

And my heart sings its praise to the Master of all,

Who helps the Doctor to serve in the road.

A musical selection, "These Are They," was given by Mrs. Purifoy Gill, accompanied by Dr. John Summers.

Rev. R. Wilbur Herring pronounced the benediction.



## SECTION ON OPHTHALMOLOGY AND OTOLARYNGOLOGY

### Friday Morning, April 16th, Hotel Marion

The meeting was called to order by Chairman Kirkpatrick.

The scientific program proceeded in order.

Chairman's Address—R. R. Kirkpatrick, Texarkana.

Symposium on Carcinoma of Larynx:

Paul L. Mahoney, Little Rock.

John W. Smith, Little Rock.

Fred W. Ogden, Fayetteville.

"Industrial Eye Problems: A Professional Responsibility," Hedwig S. Kuhn, Hammond, Indiana.

A round table luncheon followed.

Officers elected are:

Chairman—Fred W. Ogden, Fayetteville.

Vice-chairman—R. R. Kirkpatrick, Texarkana.

Secretary—K. W. Cosgrove, Little Rock.

Delegate—John W. Smith, Little Rock.

## THIRD GENERAL SESSION

### Friday Afternoon, April 16, 1948

The meeting was called to order by President Evans and the scientific program proceeded in order.

"Scope of Industrial Eye Problems," Hedwig S. Kuhn, Hammond, Indiana. Dr. Kuhn was introduced by K. W. Cosgrove.

"A Rational Approach to Pediatric Surgery," Howard S. Stern, Pine Bluff.

"Bronchiectasis: Diagnosis and Treatment," Harvey Shipp, Little Rock (lantern demonstration).

"The General Practice of Medicine as Related to the American Academy of General Practice," Paul A. Davis, Akron, Ohio.

"Panel Discussion of Subjects of General Interest to the Various Fields of the Practice of Medicine," Faculty, University of Arkansas School of Medicine, Joe T. Roberts, dean, moderator.

### Friday Evening, April 16

The Pulaski County Medical Society was host at a social hour preceding the annual banquet session and dance at the Hotel Marion.

## FINAL GENERAL SESSION

### Saturday Morning, April 17, 1948

The meeting was called to order by President Evans and the scientific program proceeded in order.

"Office Anesthesia," M. D. Prickett, Little Rock.

"The Lymph Node As An Aid to the Practitioner in Diagnosis," R. L. Ferguson, Vermillion, South Dakota (lantern demonstration).

"Occupational Health and Its Significance in Trends of Medical Practice," Carl A. Nau, Galveston, Texas. Dr. Nau was introduced by E. J. Wasley.

"The Management of Diabetic Acidosis," J. K. Thompson, Fort Smith.

"The Neurological Aspects of Poliomyelitis," Lewis J. Pollock, Chicago. Dr. Pollock was introduced by Ross Van Pelt.

## FINAL SESSION

### HOUSE OF DELEGATES

#### Saturday Afternoon, April 17, 1948

The House of Delegates was called to order by President Evans. The following delegates and members seated as delegates by action of the House (motion, Wade-Rush) were present:

ARKANSAS—S. A. Drennen; BENTON—C. S. Wilson; CARROLL—Ross Van Pelt; CLAY—J. E. McGuire; COLUMBIA—Jos. F. Rushton; CRAIGHEAD-POINSETT—J. C. Faris, W. W. Verser; CRITTENDEN—A. C. Parker; DESHA—H. T. Smith; DREW—C. Lewis Hyatt; GARLAND—H. C. Chenault, G. B. Fletcher, L. E. Reed; HEMPSTEAD—E. H. Wilkes; HOT SPRING—H. L. Brown; HOWARD-PIKE—W. H. Toland; JEFFERSON—Louis K. Hundley; JOHNSON—Guy Shrigley; LOGAN—I. H. Jewell; MISSISSIPPI—F. E. Utley; NEVADA—L. J. Harrell; PULASKI—R. E. McLochlin, D. W. Fulmer, Chas. R. Henry, H. G. Hollenberg, J. N. Compton, C. A. Rosenbaum, Hoyt R. Allen, Raymond C. Cook, J. A. Summers, T. Duel Brown; RANDOLPH—W. O. Loftis; ST. FRANCIS—J. O. Rush; SEBASTIAN—I. F. Jones, J. K. Thompson; SEVIER—C. A. Archer; UNION—W. S. Riley, J. B. Wharton, Jr.; WASHINGTON—Fount Richardson; WHITE—Hugh Edwards.

Other members of the House of Delegates present were:

President Evans, President-Elect Lutterloh, Councilors McDaniel, Wilson, Dickinson, Smith, Drennen, Owens, Gay and Hunt; Past-Presidents Fletcher, Buchanan, H. T. Smith, Archer, Allbright, Norwood, Jones, Shuffield, Wade and Robins and Secretary Brooksher.

L. H. McDaniel presented the report of the Nominating Committee:

President-Elect Euclid M. Smith, Hot Springs; M. J. Kilbury, Little Rock.

First-Vice President—Chas. R. Henry, Little Rock.

Second Vice-President—J. O. Rush, Forrest City.

Third Vice-President—Thos. P. Foltz, Fort Smith.

Secretary—W. R. Brooksher, Fort Smith.

Treasurer—Paul L. Mahoney, Little Rock.

Councilor, Second District—M. C. Hawkins, Jr., Searcy.



Councilor, Fourth District—L. K. Hundley, Pine Bluff.

Councilor, Sixth District—R. C. Dickinson, Horatio.

Councilor, Seventh District—L. G. Martin, Hot Springs.

Councilor, Eighth District—Ellery C. Gay, Little Rock.

Councilor, Tenth District—Earle H. Hunt, Clarksville.

Delegate, American Medical Association—W. R. Brooksher, Fort Smith.

Alternate, American Medical Association—Jos. F. Shuffield, Little Rock.

By motion (Rush-Drennen) the report of the Nominating Committee was accepted.

L. G. Martin and H. G. Hollenberg were appointed and the delegates cast their votes for president-elect. F. E. Utley and H. L. Brown arrived as the ballots were being counted and on motion (Gay-Owens) were granted permission to vote.

By vote of the House of Delegates, Euclid M. Smith was elected president-elect.

By motion (H. T. Smith-Allen) the other nominees were elected by acclamation.

The report of the Reference Committee was read by the secretary.

The following listed committee reports have been accepted by the Reference Committee, approved by them, and each committee is hereby commended for its excellent work in the past year:

Committee on Medical Education Hospitals  
Cancer Control  
Study of Mid-Wifery  
Mental Hygiene  
Veterans Administration Medical Care Program  
Report of the Arkansas State Cancer Commission.

#### REPORT OF LEGISLATIVE COMMITTEE

This report was accepted and approved. The Reference Committee recommends that the House of Delegates approve the addition of the subject of Hygiene to the present Basic Science Law.

#### REPORT OF HEALTH AND PUBLIC INSTRUCTION COMMITTEE

1. Report was accepted and approved, and the committee commended for excellent work. Reference Committee recommends the adoption of a resolution that the Arkansas Medical Society approve the complete coverage of the state's area and population by local, county or district full-time modern health services.

2. The Board recommends the adoption of a resolution that the State Constitution be amended (changed either by legislative amendment or referendum) to permit counties to assess a millage for public health purposes, such assessment to be optional with the counties and voted upon by the qualified voters.

3. The Reference Committee, after conference with legal counsel, approves the bill as offered by this committee, and recommends its approval by the House of Delegates.

#### COMMITTEE ON SCIENTIFIC EXHIBITS

Report is accepted but the Reference Committee suggests deferred action on the provision of exhibition booths until such time as the state society is in position to furnish this material.

#### COMMITTEE ON MATERNAL AND CHILD WELFARE

We accept this report and recommend:

1. A resolution by the House of Delegates assembled that it disapprove the resolution endorsed by the Executive Board of the American Academy of Pediatrics, endorsing subsidized pediatric education by the Federal government; that a copy of this disapproval be sent to the: (a) President of American Academy of Pediatrics; (b) President of American Medical Association; (c) President of the American Association of Physicians and Surgeons.

2. A resolution disapproving Senate Bill 1290 to provide for children's health through the Federal Security Agency, and a copy of this disapproval be sent to the members of that committee and to the American Medical Association.

3. A continuation of the column in the Arkansas Medical Journal by the Maternal and Child Welfare Committee which was started this year.

#### REPORT OF THE COMMITTEE ON CONTROL OF SYPHILIS

Report of the committee is accepted and approved. The Reference Committee recommends that this entire committee be commended for its faithful service in the past, but that its function be discontinued with the meeting of this state association.

#### REPORT OF POST-GRADUATE STUDY COMMITTEE

The committee report is accepted and approved and the committee commended for its fine work during the past year.

Reference to this committee activity is also included in the report of the Liaison Committee of the Arkansas Tuberculosis Association.

#### REPORT OF THE AUXILIARY

Report is accepted and approved. It is the recommendation of the Reference Committee that all assistance be given in the formation of county auxiliary units, but we do not believe it advisable to levy dues against members of the Society for membership in the Auxiliary.

#### LIAISON WITH ARKANSAS TUBERCULOSIS ASSOCIATION

Report of the committee is accepted and approved. The Reference Committee recommends endorsement of the study by the Arkansas Tuberculosis Association. We also recommend the endorsement of the plan as outlined to coordinate this work as a refresher course with the Post-Graduate Committee, and suggest that a notation of this recommendation be sent to the Post-Graduate Committee.

#### REPORT OF THE STATE MEDICAL BOARD OF THE ARKANSAS MEDICAL SOCIETY

The committee's report is accepted. The financial report of the committee is accepted and approved. The Reference Committee recommends that a fraternal delegate be sent to the meeting of the Texas Medical Society in Houston for the purpose of presenting the question of renewal of reciprocal agreement. The fol-



lowing changes and resolutions are offered by the Reference Committee relative to this report:

1. The Reference Committee disapproves the recommendation of this committee that the registration fees be lowered.

2. It is recommended by the Reference Committee that the secretary-treasurer of the Arkansas State Board of Medical Examiners shall be bonded in the sum of \$10,000, the fee to be paid from revenues within the Board, and that an annual audit by a certified public accountant be enacted at the end of each fiscal year, a copy of this report to be filed with the report of the Board of Examiners.

#### REPORT OF THE DELEGATES TO THE AMERICAN MEDICAL ASSOCIATION

The report is accepted, approved and the delegates commended for their work during the past year.

It is urged that the delegates of the Arkansas Medical Society continue to support the study of the House of Delegates of the American Medical Association on:

1. Hospital practice of medicine.
2. World Medical Association.
3. Committee of Nursing Problems.

#### REPORT OF THE COUNCIL

The report of the Council is accepted and approved.

#### REPORT OF THE TREASURER

This report is accepted and approved. It is recommended by the Reference Committee that in view of the inadequate bonding of the secretary of the Arkansas Medical Society, treasurer of the Arkansas Medical Society, and the executive secretary of the Arkansas State Medical Association, that the bonding of each individual be raised to \$10,000, the expense to be borne by the Society.

#### REPORT OF SECRETARY

This report is accepted and approved. The Reference Committee recommends that a special committee be appointed for the study of present, standing and special committees, for the purpose of eliminating unnecessary or duplicate efforts of the members of these committees.

#### RESOLUTIONS AS OFFERED BY SPECIAL COMMITTEES

##### Committee on Medical Service and Public Relations

The report of this committee is accepted and approved. The Reference Committee recommends:

1. That the society subscribe to and pay for:
  1. The Shearon Legislative Medical Service Bulletin.
  2. The Washington Medical Service Bulletin. These bulletins to be retained by the secretary for the use of the entire society.
3. The committee commends the study of increased public relations and suggests that a program be outlined to the council for approval at a later date.

##### National Physicians Committee

The Reference Committee recommends the adoption of the following resolution:

That the House of Delegates of the Arkansas Medical Society affirm its confidence and approval of the National Physicians Committee activities, and recommend to its constituent societies and individual physicians of Arkansas that they give the greatest possible financial

and moral support to the National Physicians Committee.

##### Association of Physicians and Surgeons

The Reference Committee recommends the adoption of the following resolution:

That the Arkansas Medical Society go on record as thoroughly endorsing the work of the Association of American Physicians and Surgeons.

##### President's Address

The address of the president is reviewed, accepted and approved, with commendation for a splendid report and an outstanding meeting for the year 1948.

#### RECOMMENDATIONS FROM THE REFERENCE COMMITTEE

1. It is recommended that the reports of all committees be in the hands of the executive secretary 30 days before the state meeting.

2. All reports should be presented under separate cover, and a copy presented to each member at the state meeting.

3. All reports should be presented in uniform manner on stationery provided by the secretary, with adequate space for a brief summary and prepared recommendations or resolutions, for consideration by the Reference Committee.

4. We recommend that all funds held by any regular designated officer committee or board of the State Medical Society, which are not in negotiable bonds be distributed in banks not in excess of guaranteed government protection.

5. We recommend that the secretary notify all county societies of the manner in which the legal counsel of the state medical society can be secured for service in that county.

6. We recommend that the president of the Arkansas Medical Society appoint his Reference Committee at least 30 days prior to the next state meeting and a copy of committee reports be placed in the hands of the committee members to facilitate action by that committee, which at present excludes them from attending the state meeting.

7. We recommend that the state medical society go on record as disapproving the government subsidy of medical education in any form in the State of Arkansas, except under conditions of national emergency, and specifically we recommend disapproval of Senate Bill 1455 and H.R. 3925, which would provide funds for medical education. We further recommend that the state medical society protest the broad powers given the Federal Security Administration in its proposed vast health program and we further protest the inadequate representation of the Arkansas Medical Society on the committee which is planning a national health assembly.

8. We recommend that the Committee on Arrangements, if possible, secure the days of Wednesday, Thursday and Friday for the next state meeting, if held in the City of Little Rock, or if held elsewhere, we recommend Monday, Tuesday and Wednesday as meeting dates.

By motion (McDaniel-Brown) the report of the Reference Committee was adopted.

Euclid M. Smith read the report of the Council.

#### COUNCIL—APRIL 15, 1948

Received report from National Council on Emergency Medical Service and recommended that report be read



to House of Delegates and that committee be formed. Expressed opposition to proposal in preliminary Selective Service legislation which would provide for special draft calls of physicians, dentists and veterinarians. Approved Minnesota Plan for Expert Medical Testimony and assigned this to the Veterans Administration Medical Care Program Specialist Rating Committee. Ordered the secretary to write letters of commendation to the Arkansas congressional delegation, Governor Laney, and Drs. Shuffield, Chenault and Roberts for their efforts to secure the new Little Rock Veterans Administration Hospital in proximity to the new medical school. Adopted a resolution commending T. T. Ross, state health officer, for his work and recommends to the legislature that his salary be increased to \$8,500.

Authorized expenses of meeting and allowed honorarium of secretary-editor. Adopted resolution in appreciation of courtesies extended in this annual session. Authorized payment of \$100 to the Auxiliary on costs of publication of their yearbook. Authorized appointment of committee to study plan for establishing endowment for deceased members. Nominated E. M. Gray, Mountain Home, for affiliate membership.

Resolved: That the Arkansas Medical Society desires to record its sincere appreciation and express its heartfelt thanks to the Pulaski County Medical Society, to the various committees, and to the individual members thereof, for the cordial welcome, the extension of unbounded hospitality, the expression of good will and kindly feelings shown each member of the Society who has been privileged to attend this session. We shall ever hold in pleasant memory the hours spent as their guests during these several days.

To the municipal authorities of Little Rock, the press, the Hotel Marion, and to each and all of those who contributed materially to our entertainment and assisted in making the present meeting the outstanding one in the history of the Society, we extend our gratitude.

By motion (Smith-Chenault) the report of the Council was adopted.

By motion (Allen-Hunt) the House of Delegates authorized the formation of a "Fifty-Year Club" of members who have been in practice for 50 years and ordered pins to be presented to these members at a special ceremonial during the 1949 annual session.

H. C. Chenault presented the report of himself and Roy I. Millard who attended the meeting of the National Council on Emergency Medical Service in Chicago April 5 and 6, 1948.

The regular spring session of the Council on National Emergency Medical Service, Chicago, Illinois, April 5 and 6, 1948, was attended by Dr. Roy I. Millard and Dr. H. Clay Chenault, representing the Arkansas Medical Society.

The Monday morning meeting was concerned principally with reports of the secretary of the Council and reports of several members of the Council. Nothing of particular importance transpired except the report by Dr. Richard Meiling, secretary of the Council, concerning his inquiries to governors and state secretaries on the status of present local disaster relief programs. Dr. Meiling stated that the response had been rather poor and apparently few states had developed a comprehensive program in this connection. He also stated that medical

representation on the state committees concerned with disaster relief programs was of great importance and that every effort should be made by each state society to see that medical representation was obtained on this committee.

Dr. Diehl discussed the United States Public Health Service report on the estimated shortage of doctors in the United States. He believed that the report did not render a clear picture of the actual shortage of doctors. He felt that the report disclosed a shortage more apparent than real and stated that medical care could as in the past, during the last World War, be given by fewer doctors than the United States Public Health Service estimate.

Dr. Donald G. Anderson, secretary of the Council on Medical Education and Hospitals of the American Medical Association, reported that his Council had received several measures for consideration in connection with the subsidization of medical education of regular career medical officers of the Military Department. However, he made no commitment for his Council in connection with this matter.

The importance of inter-council liaison was stressed by Dr. Carl M. Peterson, secretary, Council on Industrial Health, as apparently several of the Council's activities showed a definite inter-relationship.

The panel discussions on medical aspects of special weapons warfare was of great interest. Dr. Stafford Leak Warren, dean of the School of Medicine, University of California, showed two films on the effect of atomic warfare and stressed the importance of an educational program in connection with atomic explosions.

Capt. George M. Lyon, MC USNR, discussed biologic warfare and Dr. Hans H. F. Reese discussed psychologic warfare. Each showed the importance of awareness of these two agents in an all-out war of attrition.

Dr. Herman S. Wigodsky reported on the activities of the National Academy of Science and stressed the importance in times of emergency of mobilization of scientific manpower in this age of technical warfare.

Dr. Edward L. Bortz, president of the American Medical Association, in a very realistic message and in a very frank manner discussed the possibilities of World War III and the responsibilities of the medical profession in connection with such a calamity.

The afternoon session was a panel discussion on civilian medical, health and sanitary problems in a national emergency and the programs of governmental and civilian agencies to meet them.

Dr. Perrin H. Long told of the activities of the Society of Medical Consultants of World War II and how this Society had projected the idea of sending teams of experienced clinical professional men in every theater to instruct the junior officers, especially those of the Army Specialized Training Program and the V-12 Program now on duty with the armed forces. These teams leave every month for Japan, the Southwest Pacific and the European Theater of Operations.

The organization of the American Red Cross was discussed by Dr. G. Foard McGinnes. He mentioned the blood processing units of the Red Cross, the disaster relief field workers and the relationship of the American Red Cross with the physician group throughout the country.

The Department of Defense was reported by Lieut. Col. Barnet W. Beers, recorder of the Committee on Civilian Components, office of the secretary of defense. Colonel Beers pointed out that this committee had a principal function of developing legislation necessary to effect



the organization of the Department of Civilian Defense, and as soon as this department could be properly organized it would be on the same organizational level as the Department of the Army, the Department of the Navy, and the Department of the Air Forces and operated directly under the secretary of defense.

It might be well at this point to mention the function of the National Security Resources Board as it relates to the activities of the medical profession. The National Security Resources Board consists of a chairman and the heads of government departments and agencies selected by the President because of their concern with national security and defense. The Board's function is to advise the President on methods of coordinating civilian, industrial and military mobilization—in other words, on how to pool all the nation's resources for total war. It is concerned with such matters as how to use and distribute manpower, industrial resources and transportation facilities; how to establish and maintain reserves of important or scarce materials; and how to relocate, if necessary, plants and services that must be in continuous operation and it does all this from an over-all, and not just a military, point of view.

Dr. Paul R. Hawley represents the medical profession on the National Security Resources Board; and apparently so far little has been done by Dr. Hawley in this operation because of many conflicting acts of legislation now being considered by Congress in connection with the utilization of manpower. Naturally, Dr. Hawley's position here is to advise the chairman in connection with the proper utilization of manpower both for the military and civilian components and industries in case of total war.

It might be well at this point to project the views of several other speakers in connection with the present shortages in medical manpower by the various services.

It is apparent that the Army Specialized Training Program and the V-12 Program have made it possible for the Military Department to operate in this interim period following the last war. However, this program of obligatory service on the part of the V-12 and Army Specialized Training Program trainees will end this year, and each of the major components of the Military Department will face a shortage of medical manpower, which will be tragic as they will be unable to properly serve the Army now in existence. If the Army Air Forces and the Navy are increased under present legislative measures considered by Congress, their position will be even more difficult.

There was much discussion as to the availability of Medical Corps officers of the last World War who accepted reserve commissions in the military services—it was the consensus that Medical Reserve Corps officers could not be called back into active duty under any circumstances, except in a period of national emergency, which of course could be decreed by the President by the expediency of executive order. Medical officers of the United States Army, who were not actually discharged from military service at the termination of the last World War but were only given certificates of service, cannot be called back into military service after a period ending some time in June. Theoretically, this large group might be called back into active military service without recourse to the aforementioned executive order at the present time. However, it is the consensus that this step would not be taken under any circumstances.

It was perfectly evident in the discussions that this medical manpower shortage was so acute that the leaders

of the several branches of the Military Department were deeply concerned at the present time in obtaining replacements for Army Specialized Training Program and V-12 Program officers, who were being discharged at a rapid rate, having completed their two years of obligatory service.

We neglected to mention two important using agencies for manpower, that is, the Veterans Administration and the United States Public Health Service. They too are short of medical manpower.

By oversight we failed to mention one important contribution made by one of the speakers, that is, a recommendation by resolution that the Council on National Emergency Medical Service have proper representation with the National Security Resources Board. It is perfectly obvious that a close liaison must be maintained at all times between the Council and the National Security Resources Board.

Maj. Gen. Malcolm C. Grow, the Air Surgeon, was represented by Brig. Gen. John Hardgraves, who suggested several important ways in which medical manpower could be saved in a national emergency. We believe that these are pertinent and essentially are as follows:

First, that at state level a complete appraisal be made by an impartial board of medical officers as to the potentiality of the state in total medical manpower and develop a method of classification as to the specialties of the physician group within the state; set up the absolute minimum requirements for the civilian population; and then the minimum requirements for industrial mobilization, which leaves us the potential manpower pool to be utilized by the military services.

Second, in all medical units to be used in overseas operations the personnel is selected at a high administrative level sent to camps or centers for physical processing and other military procedures for a period no longer than one week and then return to their homes where they continue in the practice of medicine until such time as the unit is actually in an overseas theater and ready for operation. At this time they are radiographically order to the theater, and they proceed by the best air or boat route to wherever they are assigned and in time to start operating in a professional manner.

Third, to locate at regional centers professionally qualified Medical Corps officers in the various specialties of medicine and surgery and develop a system of air evacuation within the region served, whereby patients requiring specialized care may be forwarded by air lift without delay. Obviously, such regional hospitals could serve a large military population.

The Department of the Army was reported by Col. William L. Wilson, who stated in substance that it was impossible for a planning section at certain general level to make an all-out medical plan for any extended operation because of the rapidly changing methods of warfare. He stated that this planning section was consistently working on all types of plans to economically use medical manpower in all types of military situations. He pointed out that the Department of the Army operated strategically located Medical Department Depots, where strategic material was stock-piled, and at the present time the supply of such material and equipment was available and ample for a national emergency. He discussed the conjoined operation of the medical departments of the Air Forces, the Army, and the Navy. This matter was turned over to a representative committee of the three major services by the secretary of



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defense, this committee being an ad hoc committee headed by Dr. Paul N. Hawley. Its general mission is a thorough, specific and impartial study of the medical services of the Armed Forces with the view of obtaining at the earliest possible time the maximum degree of coordination, efficiency and economy in the operation of these services.

The operation of the Selective Service records was discussed by Col. Richard H. Eanes. It appears that this office at the present time functions only as an office of record, having projected draft and registration records to state level on those who were mobilized in World War II.

Conclusion: One could not help being impressed with the atmosphere of apprehension, insecurity and tenseness displayed by the various individuals attending this meeting and by some of the speakers on the program.

We believe that immediate steps should be taken at state level to arouse to activity the various committees concerned with a state disaster program and these committees should have proper representation by members of the State Medical Society.

Every effort should be made to insure a close coordination and liaison and, if possible, by representation on the Council on National Emergency Medical Service and with the National Security Resources Board.

By motion (Allen-Summers) the report was adopted.

L. K. Hundley spoke of the Auxiliary.

The following proposals have been investigated, discussed and approved by the Committee on the Auxiliary:

1. That the Arkansas Medical Society approve payment of \$25 yearly dues for membership of the Woman's Auxiliary to the Arkansas Medical Society in the Arkansas Legislative Council. One year's experience in this organization has been most satisfactory and continued membership is urged. It is also recommended that the Arkansas Medical Society continue its membership.

2. Permission has been granted by the Advisory Committee for the Auxiliary to accept and administer a student nurse loan fund which has been donated by individuals as a memorial fund. Approval of this action and for the incorporation of the committee to administer this fund as a benevolent institution is requested.

By motion (Henry-Allen) dues in the Arkansas Legislative Council were ordered paid for the Arkansas Medical Society and for the Auxiliary.

By motion (Gay-H. T. Smith) approval was given for incorporation of the Auxiliary.

The House of Delegates then adjourned.

### FINAL GENERAL SESSION Saturday, April 17, 1948

Immediately following adjournment of the final session of the House of Delegates, President Evans called the final general session to order.

The following past-presidents were seated on the rostrum: Geo. B. Fletcher, A. S. Buchanan, H. T. Smith, C. A. Archer, S. J. Allbright, M. L. Norwood, H. Fay H. Jones, Jos. F. Shuffield, H. King Wade and R. B. Robins.

Jos. F. Shuffield and Geo. B. Fletcher escorted

President Lutterloh to the rostrum where he received the gavel from President Evans, both speaking briefly. H. King Wade and L. T. Evans escorted President-Elect Euclid M. Smith to the rostrum and he thanked the Society for his election.

By motion (Allen-Hunt) the Society accepted the invitation of the Garland County Medical Society, extended by H. King Wade, to meet in Hot Springs National Park, in 1949, providing accommodations can be arranged.

Jos. F. Shuffield announced that the Pulaski County Medical Society would be glad to entertain the Society if Hot Springs found it impossible.

By motion (Allen-Summers) the Society adjourned sine die.

### REGISTRATION—1948 ANNUAL SESSION

Members, 373; visitors, 31; exhibitors, 57; medical students, 131. Total, 592.

### WOMAN'S AUXILIARY NEWS

The Woman's Auxiliary to the Pulaski County Medical Society held its regular monthly meeting April 21, 1948, at the Junior League House.

Hostesses for the day were: Mrs. Carl Rosenbaum, chairman; Mrs. Nick Hollis, Mrs. A. W. Strauss, Jr., Mrs. Hoyte Choate, Mrs. Robert Beck, and Mrs. R. T. Smith.

The table decorations were quite effective with spring flowers. A green organdy cloth was used on the speakers' table and beautiful silver candelabra were placed at either end. Centering the table was a mass arrangement of azaleas, iris, and weigela shading from light pink to deepest orchid.

Miss Laura Louise Jordan entertained with several selections on the mirimba during the luncheon hour.

Mrs. J. K. Donaldson presided for the business meeting and announced that the next meeting would be a tea honoring the Medical Dames and the wives of the Faculty at the Medical School.

Mrs. Minna Miller Ridley, Sunday magazine editor of the Arkansas Gazette, reviewed "Pilgrim's Inn."

The Woman's Auxiliary to the Jefferson County Medical Society met in luncheon session at Oakland Club, May 4, 1948.

Present were: Mrs. Carl Adams, Mrs. C. W. Anderson, Mrs. W. K. Bruce, Mrs. Arthur Fowler, Jr., Mrs. Fred Hames, Mrs. Clyde Hunt, Mrs. Ross Maynard, Mrs. H. McIntyre, Mrs. Chas. Reid, Mrs. James Rhyne and Mrs. Howard Stern.



# The JOURNAL OF THE ARKANSAS MEDICAL SOCIETY

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Laryngoscope, Feb. 1935, Vol. XLV, No. 2, 149-154; Laryngoscope, Jan. 1937, Vol. XLVII, No. 1, 58-60; Broc. Soc. Exp. Biol. and Med., 1934, 32-241; N. Y. State Journ. Med., Vol. 35, 6-1-25, No. 11, 590-592.



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No. 2

### THE SURGICAL MANAGEMENT OF CONGENITAL MALFORMATIONS OF THE ANUS, RECTUM AND COLON \*

HARRY E. BACON, M.D., F.A.C.S.\*\*

and

ALEXANDER C. HERING, M.D.\*\*\*

From the remotest antiquity the congenital closure of the anus and rectum was observed by the Greek, Roman and Arabic physicians. It was looked upon as beyond the power of art to remedy, and consequently as possessing no interest in their estimation beyond that of a medical curiosity.

William Bodenhamer in 1860 (1) published the first extensive work on congenital malformations of the anus and rectum which encompassed the literature of America, France, England, Italy and Germany. Until this time those of each country considered their own methods of approach as being more or less unassailable. Although today similar methods are being utilized in the management of these malformations, great strides have been made enabling colonic surgeons to restore natural function with concomitant reduction in mortality. In order to understand the management of congenital deformities more clearly, a brief discussion of the pertinent embryology may not be amiss.

The gut tract may be considered a single straight tube occupying a mesial position of the body cavity. Ventrally, it is connected with the yolk sac by the vitelline duct. That portion of the gut tract above the opening of this duct is termed the foregut; that below, the midgut; and the distal or caudal end the hindgut. The blind end of the hindgut in the vicinity of the hindgut becomes dilated during the third week of embryonic life to form a pouch known as the entodermal cloaca. Simultaneously with the descent of the entodermal cloaca, the ectodermal cloaca (or proctodeum) invaginates to form the "anal pit." Between the sixth and seventh week, the entodermal cloaca is divided by the urogenital

septum (2) into the post-allantoic gut (rudimentary rectum) dorsally, and the urogenital sinus ventrally. The latter grows and extends toward the surface to form the perineal body. During this development the entodermal cloaca and the ectodermal cloaca (proctodeum) have become fused to form the anorectal membrane or "anal plate" which normally is absorbed during the eighth week. Thereby free communication is established between the entodermal cloaca (rectum) and the ectodermal cloaca (anal canal). The precise site where the anal plate is absorbed is termed the pecten (3), dentate, pectinate or anorectal line thus, failure or arrest in the development of these structures may result in one or more of the various anomalies.

Malformations of the anus, rectum and colon are comparatively rare and may be considered to occur once in 10,000 births. These developmental defects are more common in males than in females and are frequently associated with deformities elsewhere (4). The considerable mortality characterizing these cases may result more from the associated anomalies than from the surgical treatment instituted. In our series of 98 patients presenting malformations of the anus and rectum alone, approximately 30 per cent disclosed additional defects.

#### INCIDENCE AS TO SEX (AUTHORS' CASES)

Males .....	54
Females .....	44
Total .....	98

#### ASSOCIATED CONGENITAL ANOMALIES (AUTHORS' CASES)

Anomaly	No. of Cases
Harelip and cleft palate.....	2
Meckel's diverticulum .....	1
Polycystic kidney .....	1
Exstrophy of bladder .....	3
Hypospadias .....	4
Omphalocele .....	1
Undescended testes .....	2
Spina bifida .....	2
Meningocele .....	2
Pyloric stenosis .....	2
Hirschsprung's disease .....	1
Club feet .....	1
Syndactylism .....	2
Supernumerary digit .....	2
Atresia of vagina .....	1
Imperforate hymen .....	2
Total.....	29

\* Read before the Arkansas Medical Society, Little Rock, April 16, 1948.

\*\* Professor and Head of Department of Proctology, Temple University Medical School & Hospital.

\*\*\* Resident in Proctology, Temple University Hospital.



### CLASSIFICATION

Anus.....	Total absence of the anus		
	Occlusion of the anus....	Membranous....	Complete
		Fibrous.....	Complete Partial
	Abnormal location of the anus		
Rectum.....	Total absence of rectum		
	Arrest in descent of rectum		
	Opening of the rectum into some viscus as bladder, vagina, urethra, uterus; Anus normal or absent		
	Duplication		
	Triplication		
Sigmoid.....	Atresia and stenosis of sigmoid colon		
	Duplication		
	Triplication		
	Microcolon		
	Megacolon.....		
		{ congenital acquired	

### MALFORMATION OF THE ANUS

**Total Absence of the Anus.** The treatment consists of an anteroposterior incision over the site of the normal anus. The underlying tissues are incised by sharp dissection until the rectal pouch is located. During the course of this procedure isolation of the rectum is greatly facilitated by the expansile "feel" as intra-abdominal pressure increases. The pouch is gently grasped with Babcock visceral forceps, drawn down into the wound and anchored to the lateral wound margins with silk or linen. Thereafter, the pouch is slit anteroposteriorly and the incised sphincter and skin, in front and behind are sutured with catgut. A small rubber tube is tied in the new anus to prevent contamination of the wound. Postoperatively, suflathalidine in suspension is instilled through the tube every four hours; wound cleanliness and frequent dilatations are the essentials.

**Occlusion of the Anus. (Imperforate Anus).** Ordinarily a crucial incision is made through the intact anorectal membrane and the edges trimmed. In the case of partial membranous occlusion, gradual finger dilatations may be all that is necessary. If the occlusion is of the **fibrous** type, the treatment consists of excising the attachments of the fibrous band.

**Abnormal Location of the Anus.** It is important to determine whether there is sphincteric control and if the opening is of sufficient size to permit passage of the bowel contents. If, however, the sphincters are absent and the abnormal opening is too distant from the natural location, the anus, anal canal and rectum are dissected free, transplanted and sutured in their normal location.

### MALFORMATIONS OF THE RECTUM

**Total Absence of the Rectum.** The ingenious method devised by Wangenstein and Rice (5) should demonstrate the precise location of the rectal pouch. With a metal marker placed on the perineum, a flat plate of the abdomen with

the infant held head downward may outline the blind end of the pouch and thus serve to guide the surgeon as to whether a perineal or abdominal approach is indicated. This method, however, is not infallible and abdominal exploration may be the only means to ascertain the exact position of the blind end. In the presence of obstruction a proximal colostomy should be performed immediately. It may be mentioned that Starlinger (6) (7) found the mortality rate no higher in the first 24-hour period than during the second and third days. In the absence of obstructive symptoms an abdominoperineal procedure, consisting of mobilization and transplantation of the bowel to the anus, as we have described for adults (8), may be found applicable. Rhoades and his coworkers (9) recently reported two successful cases of mobilization and transplantation by simultaneous abdominal and perineal approach. It has been our experience, however, that the initial establishment of an artificial stoma proximal to the site of contemplated surgery, may be well chosen and will tend to avoid the high mortality rate cited by various authors.

Where the proximal and distal blind pouches are separated from each other, Ladd and Gross (10) advise an oblique anastomosis, the purpose of which is to prevent postoperative constriction. It consists of an incision in the postero-superior portion of the distal pouch, and in the antero-inferior portion of the proximal pouch. In this manner, a long, oblique union and adequate lumen are obtained.

**Arrest in Descent of the Rectum.** Here also the location of the rectal pouch may be determined by flat plate of the abdomen with the child held in the inverted position (5). Where it is low-lying, the surgical approach is by the perineal route. Here an antero-posterior incision is made in the midline of the perineum, which may be extended toward the scrotum and coccyx in order to facilitate the exploration. Resection of the coccyx and lower sacral segments had never been necessary in our experience. The levators and underlying tissues are carefully mobilized and retracted, and even though a catheter is placed in the urethra or vagina for guidance, it is well to "hug" the hollow of the sacrum in order to avoid injury to the genitourinary tract. "Cut, retract, and feel," should be the procedure, because only in this way may perforation of the pouch be prevented. The dissection is continued until the finger detects bulging, after which the rectal pouch is freed and drawn down to the margin. Two or three traction sutures are inserted. Proper mobiliza-



tion is necessary to prevent subsequent retraction. The pouch is sutured with several interrupted catgut sutures, and the sphincter muscle, previously divided anteriorly and posteriorly in the original incision, is sutured together. Following skin closure a small rubber tube is introduced for 48 to 72 hours, through which irrigation is instituted using a suspension of sulfathalidine. Subsequent finger dilatation is frequently necessary.

If, however, after careful search, the rectal pouch cannot be located, the immediate performance of a left inguinal or transverse colostomy is recommended, followed later by proctoplasty.

#### **Rectum Opening Into Some Other Viscus.**

**Atresia Ani Vesicalis (Rectovesical Fistula).** Here the rectum communicates with the bladder usually by a very narrow canal lined by mucous membrane. Because of the possibility of obstruction and infection, such as cystitis and pyelitis, early temporary colostomy is to be recommended. In some instances, cystostomy may be performed as an adjunctive measure. Because of technical difficulties attempt at repair carries with it a high mortality, therefore, surgery other than colostomy, should be postponed until the fourth year or just prior to school age. Correction consists of separating the communicating viscera through an abdominal exposure; the opening in the bladder being invaginated by purse-string suture. The opening in the rectum is closed temporarily and mobilization begun until sufficient bowel is freed to insure it reaching the anus. The child is then placed in the lithotomy position and an antero-posterior incision made in the normal site of the anus. The mobilized bowel is grasped with Babcock visceral forceps and gently drawn through the wound, following which an antero-lateral pelvic floor is established similar to the technique in proctosigmoidectomy (11) (12). A small segment of bowel is permitted to protrude through the anal canal and dressings are applied. The stump is opened and a large rubber tube introduced, which is tied in place. Irrigations of the rectum are immediately instituted at four-hour intervals using a suspension of sulfathalidine. Five or six days following operation the redundant bowel is excised and the edges of the mucous membrane are sutured to the skin margins.

**Atresia Ani Urethralis (Rectourethral Fistula).** Although the urethral opening is commonly found in the membranous portion, it may occur in the prostatic site. The rectourethral tract here, too is lined with mucous membrane. Since the rectal pouch in these cases is usually situated at a lower

level, surgery offers an excellent prognosis. Lynch (13) feels that correction of the defect should be preceded by a colostomy, because of the probability of infection of the urinary tract. If the opening permits adequate fecal drainage the operation may be postponed until a later date or until the child's health has improved. An antero-posterior incision is made in the midline of the perineum, after which the underlying tissues are carefully dissected and retracted until the pouch of the rectum is located. After its urethral communication has been severed, the rectum is drawn into the wound and sutured in its normal location. The remaining perineal fistula usually closes spontaneously.

**Atresia Ani Vaginalis (Rectovaginal Fistula).** The vaginal opening may occur at any site in the vagina. Experience has shown that if the vaginal opening is adequate, operation may be well postponed until a more propitious time, preferably between the third and fifth year. The operation of Rizzoli (14) probably offers the most satisfactory results, being particularly indicated where the vaginal opening is low-lying. A midline incision is made, extending from the posterior margin of the vagina to the normal site of the anus. The underlying tissues are dissected, and the rectal pouch is located and freed. The opening into the vagina is carefully dissected elliptically, (preserving the sphincter muscle in this site), and transplanted intact with the rectal pouch to the normal site of the anus. The vaginal and perineal incisions are then closed with interrupted catgut sutures. Murdock (17) has modified the Rizzoli operation by making a U-shaped incision with the integument intact between the coccyx and mucous membrane. The opening of the rectum is transplanted to its normal location. In operating on these patients at ages from 4 to 10 months, Murdock has been able to achieve an early correction of the deformity and a more adequate perineal body. David (16) suggests that flaps of anal skin be tacked to the mucosa, which, as we have shown following proctosigmoidectomy, prevents subsequent stenosis and a "wet anus." As Dixon (15) has pointed out, infection and separation of the perineal wound following transplantation are not uncommon, although our end results have been extremely satisfactory.

Where the vaginal opening is located high in the vault a temporary colostomy is recommended followed by transplantation to the perineum with closure of the vaginal aperture between the third and fifth year.

**Atresia Ani Uterinae (Rectouterine Fistula).** This anomaly is exceedingly rare, the rectum usu-



ally opening into the cervical portion of the uterus. The rectal pouch is located through a perineal incision, and if the rectum is low-lying, obliteration of the tract with approximation of the rectum to the normal anal site may be attempted. However, a preliminary left inguinal colostomy followed by a pull-through type of operation and correction of the fistula, will probably offer a better result.

CONTINENCE OF THE SPHINCTER MUSCLE

As may be appreciated, sphincter control is of utmost importance. In more than half of our patients, an intact sphincter muscle was found in relation to the normal site. Quite frequently muscle fibers possessed of the power of contraction have been noted around the vaginal opening as determined by a Faradic stimulator. A simple incision through the proposed site in the perineum has assisted in determining the presence of these sphincter fibers.

MORTALITY FROM OPERATION

Ladd and Gross (18) (19) report a mortality of

twenty-six per cent, but state that 17 of the 56 deaths were directly due to associated anomalies. Berman (20) operated upon 18 of 23 cases, with a mortality of 6.6 per cent. Cromwell and Dulin (21) report a surgical mortality of 17 per cent. Harken (22) had a 60 per cent over-all mortality with a 20 per cent surgical mortality.

The remote results after operation are extremely discouraging, as summarized in the accompanying figures of 223 collected cases reported by Hardouin (23); survival one week, 55.2 per cent; survival one month, 44.4 per cent; survival one year, 13.4 per cent; survival twenty years, 5.8 per cent.

Of our entire group (11), namely, 98 patients, there were eleven deaths, a mortality of 11.2 per cent. However, three infants died on admission to hospital without operation. Surgery was performed on 87 patients, with seven deaths, a mortality rate of 8 per cent.

The anomalous condition, type of operation, and the results achieved are appended in the accompanying chart.

MALFORMATIONS (AUTHORS' SERIES)

Congenital Anomaly	Number of Cases	Description and Comment	Cured	Imp.	Unimp.	Died
Total Absence of Anus.....	3.....	Died on admission—no operation—signs of intest. obstr.—probably should be classified as absence of rectum or arrested descent (no necropsy) .....	---	---	---	3
	8.....	Incision in perineal site and suture of rectal pouch to anal margin.....	6	---	1	1
Occlusion of Anus (Anal stenosis) Membranous (complete)....	8	Incision and subsequent dilatation (one death due to pneumonia).....	18	---	---	1
(incomplete)....	17					
Fibrous (complete)....	2	Incision or excision with or without plastic operation .....	3	1	---	1
(incomplete)....	5					
Abnormal location of Anus.....	2.....	Both were perineal—three operations were necessary in second case before cure was affected. Operation—transplantation to normal site .....	2	---	---	0
Total Absence of Rectum.....	5.....	Colostomy performed. Subsequent correction in 2 cases.....	2	3	---	0
Abnormal or Arrested Descent of Rectum .....	11.....	Anus normal or absent. Perineal mobilization of rectum with suture to skin margin.....	6	2	---	3
	1.....	Unsuccessful perineal attempt followed by colostomy .....	---	---	---	1
	3.....	Colostomy alone .....	---	3	---	0
	1.....	Colostomy followed by perineal repair.....	1	---	---	0
Rectovesical Fistula .....	2.....	Preliminary colostomy and suprapubic cystostomy followed by repair.....	1	---	---	0
Rectovesicoperineal Fistula .....	1.....	Anal stenosis, associated with suprapubic cystostomy and successful repair.....	1	---	---	0
Rectovaginal or Rectovulvar Fistula .....	26.....	Operation consisting of mobilization and transplantation to normal site; 7 secondary operations necessary. 3 temporary and one permanent colostomy .....	23	2	1	0
Recto-urethral Fistula .....	3.....	Colostomy and suprapubic cystostomy followed by repair .....	---	3	---	0
Rectouterine Fistula .....	0					0
Total.....	98		61	17	2	10



### MEGARECTUM

This condition is extremely rare. A review of the literature revealed four cases, but two were characterized by sigmoidal dilatation and, therefore, should be excluded (24) (25). Only one was discovered in a child and classified as "congenital" (26). Recently, a case of congenital megarectum in a male nearly five years old came under our care. An abdominoperineal proctosigmoidectomy was performed, at which time it was found that the enormous dilatation was confined to the rectum. A similar case was reported by Stone (27) in which a combined abdominoperineal "pull-thru" procedure with preservation of the sphincter musculature was instituted in a 38-year-old male.

### MALFORMATIONS OF THE COLON

**Atresia and Stenosis.** These are extreme rarities. When intestinal obstruction occurs in the newborn, the use of the sigmoidoscope, as well as a thin mixture of barium, may be helpful adjuncts, although the latter must be used with care. Dependent upon the mobility of the sigmoid, either resection with immediate establishment of continuity or an exteriorization procedure of the Mikulicz type, may be employed. In the presence of obstruction symptoms, a proximal stoma should be the initial step.

**Duplication and Triplication of the Colon and Microcolon.** Only a few instances of the former anomalies have been reported (28) (29) (30). Instances of microcolon in which the involved colon was markedly narrowed have been cited (31) (32) (33). No treatment has been established and unless complications are present, none is necessary.

### MEGACOLON—HIRSCHPRUNG'S DISEASE

Perhaps the most conservative surgical measure employed in the treatment of congenital megacolon is sympathectomy. In 1930 Scott and Morton (34) reported their use of spinal analgesia in one case of megacolon as a therapeutic indication for sympathectomy. Satisfactory results have since been obtained with this method.

Penick (35) concludes that if one or more copious evacuations occur within a 24-hour period following spinal analgesia, sympathectomy should be contemplated.

The indications for left lumbar sympathectomy are listed by Penick as follows: 1) History compatible with diagnosis of congenital megacolon, 2) Mechanical obstruction should be ruled out, 3) Persistent dilatation of the bowel must be demonstrated by barium enema, 4) Failure or partial failure of medical treatment should be

demonstrated, 5) The therapeutic test should be positive, although this is not known to be a definite contraindication, 6) The age of the patient should be at least two and one-half years.

The method of sympathectomy as modified by Rankin and Learmonth (36) (37) consists of a transperitoneal division of the inferior mesenteric and presacral, (hypogastric) nerves, which are inhibitory to the rectum and colon. At the same time the motor nerves to the internal sphincter are severed. The advantage of this technique is that the vasomotor control of the lower extremities is retained. Adson (38) found resection of only the first and second lumbar ganglia of value in moderately severe cases, and resection of the inferior mesenteric nerves in conjunction with resection of the presacral nerve in moderately advanced cases. Judd (39) prefers bilateral sympathetic ganglionectomy, which includes removal of the second, third and fourth ganglia with the intervening trunk.

**Obstruction.** Where obstruction exists, surgical decompression is indicated. Any attempt at radical extirpation in the presence of obstruction is a hazardous and formidable procedure and therefore is not to be recommended.

**Resection.** Resection of the involved segment of bowel with immediate end-to-end anastomosis, the exteriorization method of Mikulicz, or the obstruction type of resection by Rankin, may be employed. In intractable cases, where the entire colon is involved, colectomy, with ileosigmoidostomy or ileoproctostomy, may be utilized. With an experience of over 400 resections for varied conditions such as cancer, diverticulitis, inflammatory stricture, chronic ulcerative colitis and endometrioma of the rectum and sigmoid, we would not hesitate to advise "proctosigmoidectomy" as a logical approach in selected cases, considering the excellent results achieved by preserving the sphincter musculature. Where the entire left colon is involved, the transverse colon may be transplanted to the anal aperture with left hemicolectomy and proctosigmoidectomy.

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## PREVENTION OF CANCER OF THE RECTUM AND COLON: DIAGNOSIS AND TREATMENT OF THE PRE-CANCEROUS LESIONS \*

MARION S. CRAIG, JR., M.D., M.S. (Proctology)  
Little Rock

It is well known that certain benign tumors are definitely precancerous lesions. Fortunately, there is only one type of precancerous lesion of clinical importance that occurs in the rectum and colon. This is the adenoma or polyp, as it is frequently called. This lesion occurs with such a surprising frequency and undergoes malignant change in such a high percentage of cases that it deserves our closest consideration. There is no other benign tumor in the body that can exceed its incidence of malignant change. Many competent authorities have repeatedly demonstrated that from 60 to 90 per cent of adenomas of the rectum and colon will eventually undergo malignant change if allowed to remain in the individual. Many of these tumors have already undergone this change when first discovered.

The accumulated evidence supports the theory that most of the adenocarcinomas of the rectum and colon arise from pre-existing adenomas. I am acquainted with the histories of a number of patients who refused treatment for an adenoma in the rectum, and who, when re-examined at a later date, were found to have an adenocarcinoma at the site of the previously discovered

\* Read before the Second Council of District Medical Society, Batesville, March 8, 1948.

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adenoma. These are examples of what can be the outcome of an innocently appearing adenoma.

Adenomas are also found with a surprising frequency in the large bowel of patients who already have a carcinoma of this organ. Buie and Brust emphasized this point and aptly designated the adenomas, "sentinel polyps." In other words, when an adenoma is found in the rectum or sigmoid one must suspect and rule out the existence of a carcinoma proximal to the adenoma. Multiple malignant tumors of the large bowel, although not common, are usually found in patients who harbor one or more adenomas.

In 1941 the Bureau of Vital Statistics reported that 159,926 people died of malignant disease in the United States. By 1945 this number had increased to over 177,000. Of this number approximately 10 per cent died from cancer of the terminal bowel. The importance of the discovery and removal of the pre-existing adenomas in cases of this nature can be easily appreciated by the magnitude of these numbers.

The figures in the literature relative to the incidence in the general population of adenoma of the rectum and colon are not too reliable because of the various methods by which the figures were obtained. The true incidence is probably somewhat higher than most of the statistics indicate. Recently, Helwig, in a careful study of the large intestine in each of 1,460 consecutive autopsies, found that 139 or 9.5 per cent contained one or more adenomas. As with cancer of the rectum and colon, adenomas occur in children as well as in adults but they are found more frequently in patients over 40 years of age. Helwig found that the incidence increased with each decade of life above the fourth decade and reached a peak in the eighth decade. Of the 1,460 large intestines he examined, 707 were from patients over 40 years of age. Of these 707 specimens, 122 or 17.2 per cent contained one or more adenomas. It is safe to say that one in every six persons over 40 years of age will develop a permalignant tumor in his rectum or colon if he lives a normal span of life. If the age bracket of 40 to 70 years in which rectal and colonic malignancy is prone to present symptoms is accepted, then every effort should be made to discover and eradicate the premalignant lesions in this particular age group. A part of every thorough physical examination should include a proctosigmoidoscopic examination, particularly, if the patient is at least 40 years of age.

An adenoma, by definition, is a benign tumor

composed of glandular tissue and resembles in structure the normal mucous membrane from which it arises. These tumors are either sessile or pedunculated, and vary in size from a few millimeters in diameter to large enough to fill the lumen of the bowel. The symptomatology of adenomas of the rectum or colon is variable and is dependent upon the size, location and number of the tumors. Many adenomas are symptomless until they undergo advanced malignant change. Bleeding which is scanty as a rule, straining at stool or discharge of a moderate amount of mucus during defecation may be the only symptom present.

Adenomas are best found and identified by visualization of the mucous membrane of the rectum and sigmoid through the electrically lighted proctosigmoidoscope. Seventy per cent of the lesions occur within the reach of this instrument. The roentgenologist should not be expected to discover and identify lesions in the rectum and rectosigmoid. Because of its anatomic position the rectum is to a certain extent a "blind spot" to the radiologist. The reverse is true of lesions situated in the colon above the reach of the proctosigmoidoscope. The use of the double contrast air-barium method of examination has permitted lesions in the colon of only a few millimeters in diameter to be accurately identified. When one or more adenomas are found at proctosigmoidoscopic examination an X-Ray examination of the colon, using the double-contrast technic, must be done to exclude the presence of additional lesions above the reach of the proctosigmoidoscope.

Through the proctosigmoidoscope adenomas appear as smooth and shiny or rough and warty or cauliflower-like growths. In general, the smaller tumors are more likely to show a regular outline and the larger ones a definitely lobulated or villous form. Their color varies from a pale pink to a deep red depending upon the amount of irritation and vascular congestion present. If a pedicle is present it varies with the size and age of the tumor. These tumors are usually solitary but may be multiple. They may be located in any portion of the rectum and colon but the majority occur within the reach of the proctosigmoidoscope. In some cases the adenomas are very numerous and involve most of the mucosal surface of the large bowel. This condition is known as "adenomatosis" or "multiple polypoid disease" of the rectum and/ or colon and is, in most instances, a heredofamilial disease.

One must differentiate adenomas from other



tumor-like conditions occurring in the terminal bowel. Hypertrophic anal papillae may attain larger size and are often mistaken by the occasional examiner for adenomas. Anal papillae arise from the dentate line and have fibrous triangular tips. Prolapsing internal hemorrhoids, fibrous tags and other benign tumors should not be confused with adenomas if a careful examination is performed. Both a frank carcinoma and an adenoma may be and frequently are polypoid in appearance. One always has to decide whether a tumor is benign or malignant. A tumor with a fixed, indurated base is almost invariably malignant. Irregular firm nodules and indurated ulceration are highly suggestive of malignancy. The microscope will give the true answer but care must be taken to make certain that the biopsy is removed from the most suspicious area. Malignant change in an adenoma tends at first to be localized in only one portion of the tumor and may easily be missed in removing a biopsy specimen.

Just why adenomas are so susceptible to malignant change is still unknown. Robertson believed that when malignant change in an adenoma takes place it tends at first to be localized at the periphery. He suggested that the tip of the adenoma becomes entirely transformed into cells which slowly escape from "inhibitory" regulation and assume independence of growth. Just when this change will take place in a particular adenoma no one can say. It may be a matter of months, it may be a matter of years, and then again it may never take place. Every adenoma, even though seemingly benign, must be looked upon as potentially malignant and eradicated promptly on discovery.

Fulguration has proved the most adaptable and satisfactory method of destroying adenomas that are within reach of the proctosigmoidoscope. The procedure can be accomplished through the proctosigmoidoscope, and unless the lesion is large and is situated close to the anal dentate margin no anesthesia is required. Small pedunculated or small sessile adenomas may often be destroyed with little need for further observation at that time. Larger lesions may require more than one fulguration and they should be observed until the destroyed tissue has sloughed and the healing process has progressed to the point at which the possibility of hemorrhage is known to be precluded. Hemorrhage is one of the complications of fulguration and measures must be taken to provide immediate care if it should occur. Often it is advisable to apply radium to the fulgurated region when sessile adenomas are

destroyed as a prevention against subsequent hemorrhage.

Monopolar or Oudin current is the most useful for fulguration, especially when it is supplied by an apparatus which will permit separate control of the spark gap and the voltage. In applying the spark it should be so short as to provide accurate application, thus preventing unnecessary injury to the wall of the bowel. A proctosigmoidoscope provided with an accessory tube to permit withdrawal of the smoke that results from fulguration is very helpful. Experience in using this method is necessary to insure the most satisfactory results.

This method of fulguration has enabled proctologists to save the rectum and sigmoid of some young individuals afflicted with "adenomatosis" or "multiple polypoid disease"; it has prevented the occurrence of carcinoma among numerous individuals and has eliminated some of the more radical procedures which might otherwise have been applied to the region in question.

Adenomas situated beyond the reach of the proctosigmoidoscope must be removed by surgical procedures. As a rule a single adenoma can be excised locally through a transcolonic approach if it is attached to the wall of the bowel by means of a pedicle. If the lesion is sessile in character a more radical procedure is usually necessary, such as segmental resection. Adenomatosis involving the entire colon can in some instances be managed satisfactorily by, first, anastomosing the ileum to the lower part of the sigmoid and subsequently performing a subtotal colectomy. After recovery of the patient, the adenomas in the rectum and sigmoid up to the anastomosis can be eliminated satisfactorily by fulguration. Periodic examination with the proctosigmoidoscope and fulguration as indicated will keep that remaining portion of large bowel free of recurring adenomas.

The mere removal of an adenoma does not mean that the patient may be dismissed and forgotten. A patient who has had one adenoma is always a candidate for another adenoma in related or different locations. He should be informed of this fact and instructed to return for re-examination every six months. Re-examination should consist of a proctosigmoidoscopic examination and a barium enema examination of the colon above the reach of the proctosigmoidoscope.

If large numbers of rectal and colonic adenomas are to be found in the adult population, it will not be sufficient to depend upon the few highly trained specialists in this field. All doc-



tors doing any type of general diagnostic work must be aware of the significance of these tumors, their frequency, and be prepared to search for them at every provocation.

I am taking this opportunity to stress the appointment of a proctologist or someone else who is capable of performing an intelligent proctosigmoidoscopic examination to each state, county, municipal or local cancer control group wherever the same are available. The duties of such appointee should include bringing to the attention of the medical profession ideas of surgical prophylaxis from the viewpoint of the proctologic surgeon, and advocating a yearly proctosigmoidoscopic examination of all beyond their 40th birthday.

The diagnosis of adenomas and the eradication of such lesions are important phases of preventive medicine which pay dividends out of proportion to the diligence, time and skill expended.

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### SECRETARIES OF COUNTY MEDICAL SOCIETIES 1948-1949

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R. H. Whitehead, Jr., DeWitt	A. W. Keith, Stamps
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H. V. Kirby, Harrison	Henry McEntire, Star City
<b>Bradley</b>	<b>Little River</b>
W. J. Hunt, Warren	J. G. Shelton, Jr., Ashdown
<b>Carroll</b>	<b>Logan</b>
W. A. Woodcock, Berryville	A. B. Dickey, State Sanatorium
<b>Chicot</b>	<b>Lonoke</b>
M. K. Bottorff, Lake Village	O. D. Ward, England
<b>Clark</b>	<b>Miller</b>
Joe W. Reid, Arkadelphia	W. B. Harrell, Texarkana
<b>Clay</b>	<b>Madison</b>
J. E. McGuire, Piggott	Fred Youngblood, Huntsville (1947)
<b>Cleveland</b>	
W. G. Hancock, Rison	

<b>Columbia</b>	<b>Mississippi</b>
John H. Wilson, Magnolia	F. E. Utley, Blytheville
<b>Conway</b>	<b>Monroe</b>
James O. Porter, Jr., Morrilton	W. L. Walker, Brinkley
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<b>Crawford</b>	<b>Nevada</b>
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<b>Cross</b>	<b>Phillips</b>
J. W. Lamb, Wynne	John B. Terry, Helena
<b>Dallas</b>	<b>Polk</b>
J. E. M. Taylor, Sparkman (1947 Sec.)	Henry N. Rogers, Mena
<b>Desha</b>	<b>Pope-Yell</b>
Geo. M. Webb, McGehee (1947 Sec.)	W. O. Young, Russellville
<b>Drew</b>	<b>Prairie</b>
G. E. Gibbons, Monticello	J. C. Gilliam, Des Arc (1947)
<b>Faulkner</b>	<b>Pulaski</b>
I. N. McCollum, Conway	Mr. Gaston G. Fulmer, Little Rouk
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W. M. Lamb, Paragould	J. O. Leslie, Marshall
<b>Hempstead</b>	<b>Sebastian</b>
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<b>Johnson</b>	
G. R. Siegel, Clarksville	

#### OBITUARY

JOHN TRIMBLE PALMER, age 69, died at Pine Bluff May 25th following a heart attack suffered while on vacation at Hot Springs National Park. Born in Mississippi, he graduated from Tulane University of Louisiana in 1905 and first practiced at Star City, moving to Pine Bluff in 1910. He was a member of the Masonic lodge and was elected to honorary membership in the Jefferson County Medical Society and in the Arkansas Medical Society April 16, 1947. Surviving relatives are his wife and a son.



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## EDITORIAL

### THE ARKANSAS HEALTH PLAN

By ELLERY C. GAY, M.D., D.D.S.  
Sponsor Chairman

Because of the pressure of the new responsibilities which he has assumed for the Arkansas Medical Society, Doctor Charles R. Henry has resigned from his position as chairman of the Joint Committee sponsoring the Arkansas Health Plan.

Doctor Henry had held the chairmanship since official representatives of the Medical Society and the Arkansas Hospital Association together with representatives of the public first began jointly investigating the possibility of sponsoring a prepayment plan for surgical and hospital care. The development of the Arkansas Health Plan as the most comprehensive program in existence and the enrollment of some 15,000 members to date are largely credited to Dr. Henry's enthusiastic leadership. His resignation as chairman was accepted by the Committee with great regret.

On the firm foundation which has been established for it, the Plan continues to grow rapidly. Appointment of Thomas Sparks as the Plan's representative in the Fort Smith area has been announced by M. L. Dougherty, Plan director.

Mr. Sparks is a veteran of prepayment plan work. His appointment conforms with the plan for regional representation throughout Arkansas as originally envisioned by John R. Mannix, president of the John Marshall Insurance Company, which is underwriting the Arkansas Health Plan. The schedule calls for the installation of regional representatives in other areas as rapidly as the growth of the Plan justifies such expansion.

Among groups recently enrolled is the Crossett Arkansas Industries, which brought 4,000 employees and family members into the Plan. The enrollment of this large group was greatly advanced by the splendid cooperation received from Doctor Roland W. Hipsley, director of the Crossett Medical Center, and from officers and executives of the company.

The volume of inquiries from industrial and business groups continues to rise steadily, and many of these inquiries have been stimulated by doctors who have urged employers and executives among their patients or friends to investigate the advantages of the Plan. Mr. Daugherty at the Arkansas Health Plan, Waldon Building, Little Rock, is glad to answer inquiries from any source.

The program to extend the benefits of the Arkansas Health Plan to farmers and their families now is well developed. The Plan has been offered to Farm Bureau members on a county-wide basis in 14 counties, and approximately 5,600 farmers and members of their families have enrolled in these areas.

In addition, enrollment of other rural groups has spread throughout the State, so that the Plan now serves rural people in nearly every county. The support of individual doctors as well as of County Medical Societies has been extremely important in this development.

## THE NATIONAL HEALTH ASSEMBLY

On May 1-4th, the National Health Assembly convened by Federal Security Administrator Oscar Ewing met in Washington with about 800 invited delegates present. It is understood that the cost of the assembly was over \$40,000, contributed, it is said by certain foundations, the American Red Cross, the American Cancer Soci-



ety, The National Foundation for Infantile Paralysis and probably a number of individuals. For the work of the conference there were fourteen sections, one of which, that on medical care, attracting naturally the greater interest of the practicing physician. From preliminary reports it is apparent that of the 126 delegates registered in this section, 36 were physicians, of whom probably no more than 10 are in active practice. In this connection it is of interest to review the efforts of the Arkansas Medical Society to send a delegate to this section. Not receiving an official invitation, Senators Fulbright and McClellan were asked to arrange for representation of the Society in this conference to consider and make recommendations as to the provision of medical care. The Federal Security Administrator replied: "The physical limitations of meeting and sleeping room space in Washington during May 1-4 have made it impossible for us to go beyond national organizations in medicine, health, nursing, pharmacy and related fields. I hope very much that you will tell Dr. Brooksher how much we regret that it is not possible to include representatives from the important state organizations but that we will do the very best we can under the inescapable limitations." Other state medical societies were likewise denied participation but the American Medical Association was represented. It is understood that the Physicians Forum, an organization long active in the interest of the Murray-Wagner-Dingell bill, had 7 delegates. Testimony before a Senate committee has previously indicated that this "national" organization has a membership of about 1,000. In the total delegate representation, twenty states, among them Arkansas, had no representation. Invited from Arkansas were the state superintendent, school lunch program, State Department of Education; an extension worker of the University of Arkansas; a member of the faculty of the College of Agriculture, University of Arkansas, and the State Health Officer.

An executive committee from the Assembly of 39 members comprising official representation from the American Medical Association and other similar bodies is charged with the final responsibility for evaluating the recommendations from the different panels or sections and for issuing a final statement to clarify objectives in health for the people of the United States. The report of the Federal Security Administrator to the President of the United States, it is understood, need not be bound by any of these recommendations.

As would have been expected, the President in his appearance before the Assembly indicated his continued conviction that a compulsory sickness insurance system is the solution for the health problems of the nation. Mr. Ewing also stated that he personally felt that the health needs of the nation could be met only by some form of compulsory health insurance.

The full recommendations of the Assembly will be presented as made available in The Journal of the American Medical Association and physicians are urged to read these in detail.

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### RANDOM THOUGHTS OF THE SECRETARY

May 20th. Riding in the unaccustomed luxury of Jones' Cadillac to Clarksville tonight where the Johnson County group entertains with another of those "out-of-this-world" chicken dinners and there is a minimum of postprandial oratory as the assemblage digs into pockets to support the Clarksville candidate for rodeo queen with 1,900 votes.

May 21st. Finding the price of last night's luxury ride to be ours as Jones had the gas tank filled on our account. We might as well have filled a Braniff DC-3 for this ride. The next trip to Clarksville will not be in a Cadillac with us buying the gasoline.

May 27th. The Veterans Administration Medical Care committee meets, it is hoped, for the last time this night, coming to agreement on the fee schedule and other matters with the affable Lowry from Saint Louis, who talks the language of radiology in glib manner from many years association with Lewis Gregory Cole.

May 28th. Our Braniff liner passes over Belleville at 7:30 this morning and we suppose Kent Grace has been up seeing patients for many an hour.

June 1st. Our best wishes to Perry Keith who takes over the Orlando and gives Camden what it has long needed—A Hotel.

June 4th. Bill Adams makes medical history today by delivering Siamese twins roentgenologically diagnosed ante partum.

June 5th. That "non-political jaunt" which the President is taking looks like the well-known charge of the light brigade to us: they even have to work up the attendance.

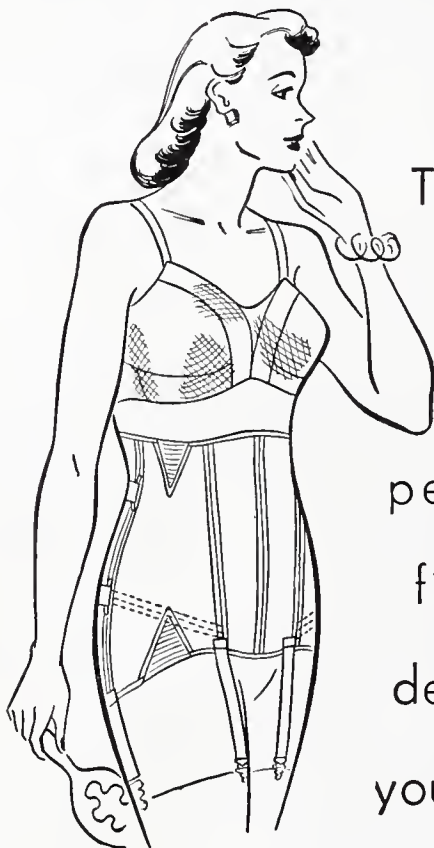
June 6th. With Jones, junior, in a delightful air ride to Little Rock this morning and attending the legislative conference which enjoys the mildly enthusiastic participation of some thirty-eight members but is, withal, a good start.

June 7th. In Kansas City for three hours tonight participating with no particular glory in a preliminary American Board of Radiology examination conducted by Ira Lockwood.

June 8th. Comes another of the Los Angeles physicians to speak kind words of Foltz but reluctant, as were Foltz and Chamberlain, to attend tonight's meeting of the county medical society where we discoursed in our heckled style on lung carcinoma but we could not help but note that some left the meeting thinking over a recent case.



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# TUBERCULOSIS ABSTRACTS

## *A Review for Physicians*

ISSUED MONTHLY BY THE NATIONAL TUBERCULOSIS ASSOCIATION

### TUBERCULOSIS CASE FINDING

THE first step in the eradication of tuberculosis is to find the persons who already have active pulmonary tuberculosis. If case finding is not carried on constantly it does little good for the community to provide hospital beds and other services, necessary as they are. For the persons who should use them will still be engaged in the ordinary activities of life in the community. When symptoms of tuberculosis appear it is usually too late to have prevented the spread of the disease and the best opportunity for effective therapy is gone.

Selective Service boards after mass X-Ray study of all inductees showed that 90 per cent of the men rejected for tuberculosis had minimal disease, where as almost 90 per cent of the patients admitted to the sanatoriums in this country have advanced disease.

Adults, rather than children, are chiefly responsible for the spread of tuberculosis. Public health laws should insist on the mass X-Ray examination of all school teachers, food handlers and domestics—a surprising number of whom are admitted to sanatoriums. Tuberculosis is found more frequently in certain occupations than in others. The danger of silicosis and tuberculosis is well known, and much has been done to control the hazard of silica dust.

Student nurses and physicians are often exposed to infection in their daily duties. Every patient admitted to a general hospital should have an X-Ray examination of the chest. If this were done, it is believed that the prevalence of tuberculosis among medical students and nurses would be reduced.

Reports have shown a high incidence of tuberculosis among inmates of mental hospitals. These patients are a source of danger not only for other inmates but also for the attendants. Tuberculosis is also prevalent among the inmates of prisons. The confinement and frequent overcrowding of these institutions gives an opportunity for the disease to spread. Since many prisoners are later discharged to their homes and communities the danger is obvious.

It is an accepted fact that decent housing, an adequate diet and an acceptable standard of living are necessary to keep down the tuberculosis rate. If the disease is to be eradicated,

greater effort will have to be made to abolish slum areas and crowded tenement districts.

Industry must play its part in the reduction in the morbidity and mortality of tuberculosis. A pre-employment examination, including an X-Ray film of the chest, should be required. Well established standards for ventilation, sanitation, health education and personal hygiene should be enforced.

The heavy economic and financial burden on the taxpayer of a long hospitalization is not fully realized by the general public. Case finding is a sound investment for any community. The earlier the case is diagnosed, the shorter the period of hospitalization. In addition, the number of cases will be definitely reduced, for the earlier segregation of the patient prevents spread of the disease to the family and the community.

The opportunity of practicing physicians to find cases of tuberculosis is unquestionably greater than that of any agency. It is regrettable when patients are admitted to sanatoriums with far advanced tuberculosis after having been under treatment for months for chronic bronchitis. It is a safe policy for the physician to insist on an X-Ray film of the chest whenever a patient's cough persists for more than two weeks. Any physician who waits to make a diagnosis of tuberculosis by auscultation imposes a grave responsibility on himself—nine out of every 10 cases by that time are in the advanced stage. It is no credit to a physician when an X-Ray film of the chest shows existing tuberculosis after numerous cough mixtures have failed.

Again, the physician will find it advantageous to insist on an X-Ray examination of the chest every six months on all diabetic patients. The





“... a considerable reservoir of unsuspected and unreported amebiasis has been brought back to the United States . . . .”<sup>1</sup>

**U**rging clinicians and roentgenologists to be on the alert for signs of this disease, Wilbur and Camp<sup>2</sup> note the frequency with which the radiologist finds unsuspected lesions, ultimately diagnosed as amebiasis.

Diodoquin . . . high-iodine-containing amebicide . . . “is a valuable addition to the therapeutic remedies available for the treatment of this insidious and intractable disease.”<sup>3</sup>

Diodoquin may be employed in acute or latent forms of amebiasis. Relatively nontoxic, well tolerated, Diodoquin does not produce unpleasant purgation and may be administered over prolonged periods.



## **DIDOQUIN SEARLE**

(5,7-diiodo-8-hydroxyquinoline)

1. Editorial: *The Problem of Amebiasis*, J.A.M.A. 134:1095 (July 26) 1947.
2. Wilbur, D. L., and Camp, J. D.: *Amebic Disease of the Cecum: Clinical and Radiological Aspects*, *Gastroenterology* 7:535 (Nov.) 1946.
3. Morton, T. C. St. C.: *Diodoquin for Chronic Amoebic Dysentery in Service Personnel Invalided from India*, *Brit. M.J.* 1:831 (June 16) 1945.

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high incidence and rapid spread of tuberculosis in diabetic patients are well known. It is further recommended that a chest X-Ray film be taken in all cases of pneumonia approximately three months after the patient has fully recovered from the illness, since it has been shown on numerous occasions that an attack of pneumonia has been the responsible agent in lighting up an old inactive tuberculous lesion.

The board of health has a responsibility for those unable to obtain the services of a physician and also a responsibility to the physician to provide diagnostic facilities. The physician should report all cases of tuberculosis to his board of health as soon as the diagnosis is established.

The medical graduate is often told that tuberculosis is a waning disease that will completely disappear in a few years; medical students 25 years ago heard the same story. Tuberculosis is still the most serious health problem confronting any state or community. One cannot overlook the fact that there are still about 500,000 cases in the United States, that tuberculosis is the leading cause of death between the ages of 20 and 40 and that on the average nearly 60,000 persons die of tuberculosis every year.

It is obvious that the crux of any program of tuberculosis control is early case finding by mass X-Ray study and immediate segregation of the patient until he is well enough to return to his family and community. If a reduction in the mortality and morbidity from tuberculosis is to be achieved, the full support and cooperation of the general practitioner, the public, industry and public-health agencies are absolutely essential.

Tuberculosis Case Finding, John A. Foley, M. D., and John B. Andosca, M.D., *The New England Journal of Medicine*, December 5, 1946.

## PROCEEDINGS OF SOCIETIES

The Sebastian County Medical Society was addressed June 4th by W. R. Brooksher, "Primary Carcinoma of the Lung.

J. K. Thompson, Secretary.

The Craighead-Poinsett County Medical Society met in dinner session June 5th at Jonesboro for the following program: "Fundamentals in the Treatment of Diabetes Mellitus," Henry B. Gotten, and "Some of the Common Causes of Hematuria," Sam Raines, both speakers of Memphis.

J. H. McCurry, Secretary.

The Greene County Medical Society met June 8th in a joint dinner session with the newly formed Greene-Clay County Medical Auxiliary.

Doctors Eugene E. McKenzie and Charles Cook, Memphis, Tenn., were the guest speakers on the scientific program. Doctor McKenzie gave an excellent talk on "Malignancies of the Colon," and Doctor Clark gave a most interesting paper on "Coronary Insufficiency—Coronary Heart Disease (without infarction in myocardium)."

The Auxiliary was addressed by Rev. Guy Ames, Paragould, Arkansas.

W. McD. Lamb, Secretary.

## PERSONALS AND NEWS ITEMS

Jon McCullough Smith has been elected third Vice-president of the Little Rock Lions club.

S. W. Hawkins, Fort Smith, spent a recent vacation at Boston and other points in the east.

S. Z. Faier, Fort Smith, has been elected a fellow of The American Laryngological, Rhinological and Otological Society.

E. C. Moulton, Jr., who recently completed his residency at the Massachusetts Eye and Ear Infirmary, is now associated with his father in the practice of ophthalmology at Fort Smith.

The citizens of Eudora honored Dr. S. W. Douglas by celebrating "S. W. Douglas Day" May 17th.

J. O. Porter, Jr., has been elected vice-president of the Morrilton Lions club.

H. Fay H. Jones has been elected president of the Little Rock Rotary club.

G. R. Siegel has been appointed general chairman for the Johnson County Peach Festival at Clarksville.

Elizabeth Fletcher, Little Rock, has passed the examinations as a diplomate of the American Board of Neurology and Psychiatry.

J. Harry Hayes, Little Rock, attended the recent meeting of the American Association for the Study of Goiter at Toronto, Canada.

J. E. Beasley has been elected second vice-president of the Blytheville Lions club.

H. Fay H. Jones, Little Rock, has been re-elected delegate to the executive committee of the



For surface infections . . .



*Impetigo and ecthyma usually respond rapidly* to topical Furacin therapy. Good results have been reported in 49 of 55 cases of impetigo<sup>1,2,3</sup> and in several cases of impetigo about infected wounds.<sup>4</sup> Ecthyma responded favorably in 19 of 24 cases.<sup>1,2</sup> Cure of these pyodermas is often effected within eight days. Furacin N.N.R., brand of nitrofurazone, is available as Furacin Soluble Dressing and as Furacin Solution, both containing 0.2 per cent Furacin.® These preparations are indicated for topical application in the prophylaxis or treatment of infections of wounds, second and third degree burns, cutaneous ulcers, pyodermas and skin grafts. Literature on request. **EATON LABORATORIES, INC., NORWICH, N. Y.**

1. Downing, J. G., Hanson, M. C. and Lamb, M.: Use of 5-Nitro-2-Furaldehyde Semicarbazone in Dermatology, J.A.M.A. 133:299, 1947 2. Robinson, H. M. and Robinson, H. M., Jr.: The Comparative Values of Some New Drugs in the Pyodermas, South. M. J. 40:409, 1947 3. Miller, J., Rodriguez, J. and Domonkos, A.: Evaluation of Penicillin in Topical Therapy, New York State J. Med. 47:2316, 1947 4. McCollough, N. C.: Treatment of Infected War Wounds with a Nitrofurane. Indust. Med. 16:128, 1947.



American Urological Association, representing the South Central section.

A. A. Blair, Fort Smith, has been appointed a member of the Scientific Council of the American Heart Association.

Dr. and Mrs. M. H. Scott, Fort Smith, spent a recent vacation in the Ozarks.

Carroll F. Shukers, Little Rock, has been appointed representative of the American Association of Blood Banks in Arkansas.

The Tri-County Medical Society was addressed at Hugo, Oklahoma, May 11th, by F. E. Shearer, "Organic Causes of Vomiting in the First Six Months of Life"; Fred H. Krock, "Surgical Treatment of Vomiting in Infancy," and Art B. Martin, "Tularemia," all speakers of Fort Smith.

E. J. Ritchie and Virgle E. Lyons have been appointed members of the North Little Rock Board of Health.

W. L. Bunch, Jr., who has been in Birmingham with the Mid-South Medical Center is now in Meridian, Mississippi.

R. L. Turnbow has located for practice at El Dorado.

Vernon Toombs, Gurdon, has accepted a residency at Saint Louis Children's Hospital.

Dr. and Mrs. W. F. Adams, Fort Smith, spent a June vacation at Lake Buchanan, Texas.



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No. 3

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4. The disagreeable and uncooperative patient not accepted.
5. Patients admitted between 10 A. M. and 12 Mid-day, and 2 P. M. and 4 P. M. on reservation.

ROY CARL YOUNG, M.D., Medical Director

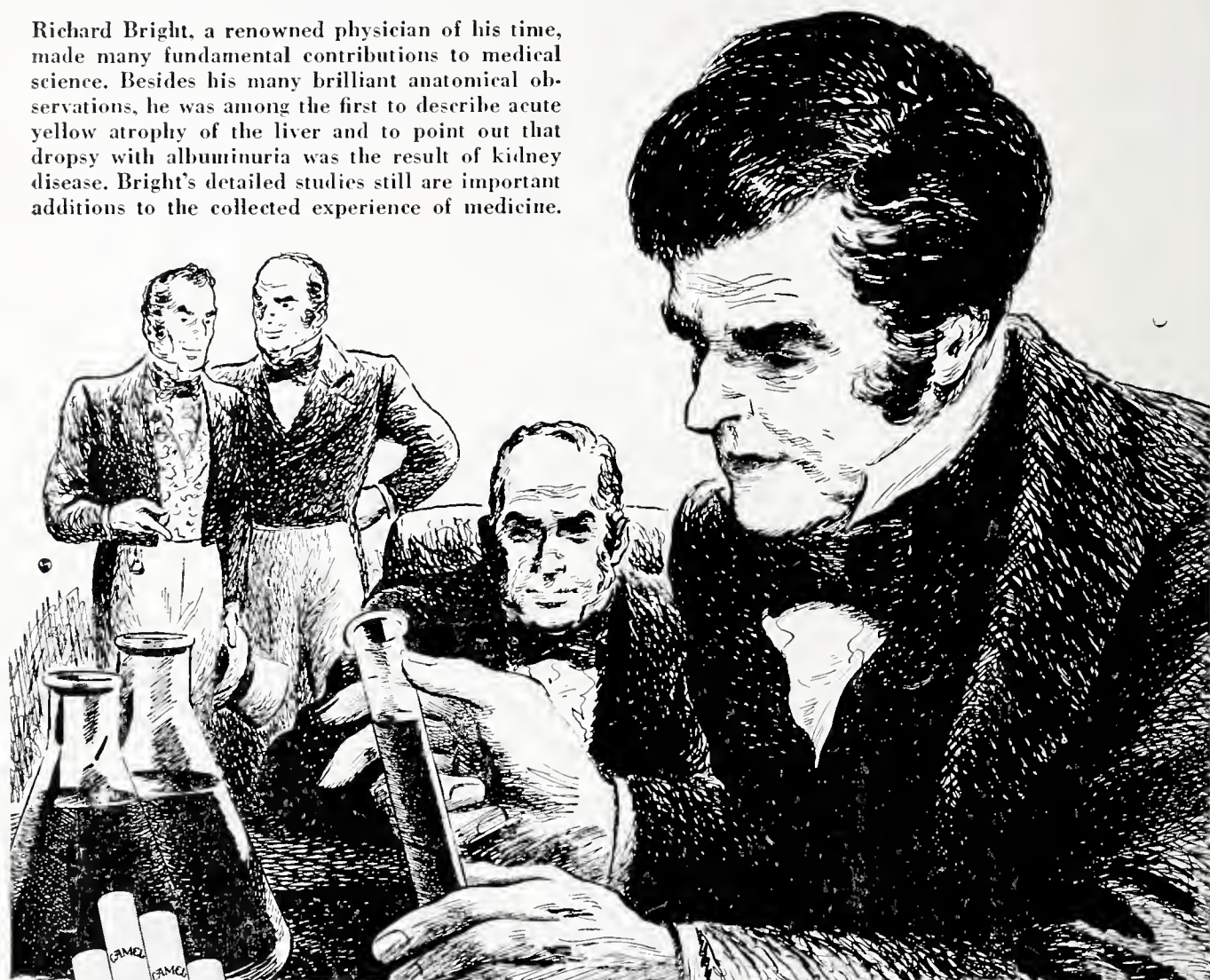
A. LAURIE YOUNG, Manager



# *Experience is the Best Teacher*

**Richard Bright (1789-1858) proved it in anatomy**

Richard Bright, a renowned physician of his time, made many fundamental contributions to medical science. Besides his many brilliant anatomical observations, he was among the first to describe acute yellow atrophy of the liver and to point out that dropsy with albuminuria was the result of kidney disease. Bright's detailed studies still are important additions to the collected experience of medicine.



R. J. Reynolds Tobacco Co., Winston-Salem, N. C.

## *Experience is the best teacher in cigarettes, too!*

**Y**ES! Experience counts in medicine—and in choosing a cigarette, too. Thousands and thousands of smokers who have tried and compared many different brands of cigarettes have learned from experience that Camels suit them to a "T." Result? More people are smoking Camels than ever before.

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### GENERAL MEDICAL PRACTICE AND THE AMERICAN ACADEMY OF GENERAL PRACTICE \*

#### ITS FUNCTIONS AND PURPOSES

PAUL A. DAVIS, M.D.  
Akron, Ohio

The practice of medicine is one of the oldest professions and dates back to many years before Christ. Mythology, fear, superstition, and assumption have been replaced by confirmed facts and data which are exposing the secrets of the human organism. The facts have been made possible for future generations by the untiring and unselfish work of the practitioner of medicine, who, in the beginning, was a rugged individualist who wanted to practice medicine with his patients and be free from all entanglements, but certain trends have become national in scope, and now medical men must get into the scheme and direct it. Some of the greatest minds in science and medicine have been general practitioners. Medicine has made great strides in the past, but during the last fifty years advancement has far exceeded any previous period. If there does not occur any political or socialistic disruption of the American system of medicine in the future, we may reasonably expect even greater advancement in the next fifty years—but if this should occur, we will go into a period of retrogression.

The practice of medicine today is becoming more complicated and the physician is confronted with many problems, not all of which are created by himself, but upon which he must spend much valuable time, which detracts from his duty as a healer of human ills. The physician of modern times must meet the following problems and must keep himself well versed on what is happening:

1. Political medicine.
2. Community and civic health projects.
3. Medical organization problems.

4. Hospital organization.
5. Post-graduate studies.
6. Federal health legislation.
7. Over-specialization.

One of the most serious problems which confronts all physicians is that of socialized, or federalized medicine, and it is up to each individual physician to oppose any legislation which is detrimental to the practice of medicine. Statistics show that we have the best system of practice of medicine in the world, that our life expectancy is higher, our death rate lower, and that our medical service is available to all individuals, regardless of economic status, creed, or color.

In community and civic projects, it is the physician's duty as a citizen and as a health adviser to associate himself with these projects.

Every physician owes it to himself, his profession, his community, and his patients to keep up with the advancements in medicine today. He should attend post-graduate meetings and courses and avail himself of all knowledge which will make him a better doctor, regardless of how good he is at present. New methods of treatment, new discoveries, new drugs and chemicals are being reported almost daily. The public is conscious of these discoveries; they are our patients; so also should the doctor be well informed and able to administer such treatments.

What has happened to the physician during those years of advancement? Has he advanced with the scientific age? Has he been provided with facilities for advancement, or has he been given opportunities to advance? Basically, he has advanced with this progress because certain factors involving his daily work have been improved, such as:

1. **Educational Improvements and Requirements.** We no longer find the doctor who became such through an office apprenticeship, and if I am correctly informed, calomel, castor oil, turpentine, kerosene and various other kitchen remedies have suffered in popularity. Such an era was inevitable with the lack of transportation, educational, and research facilities. The

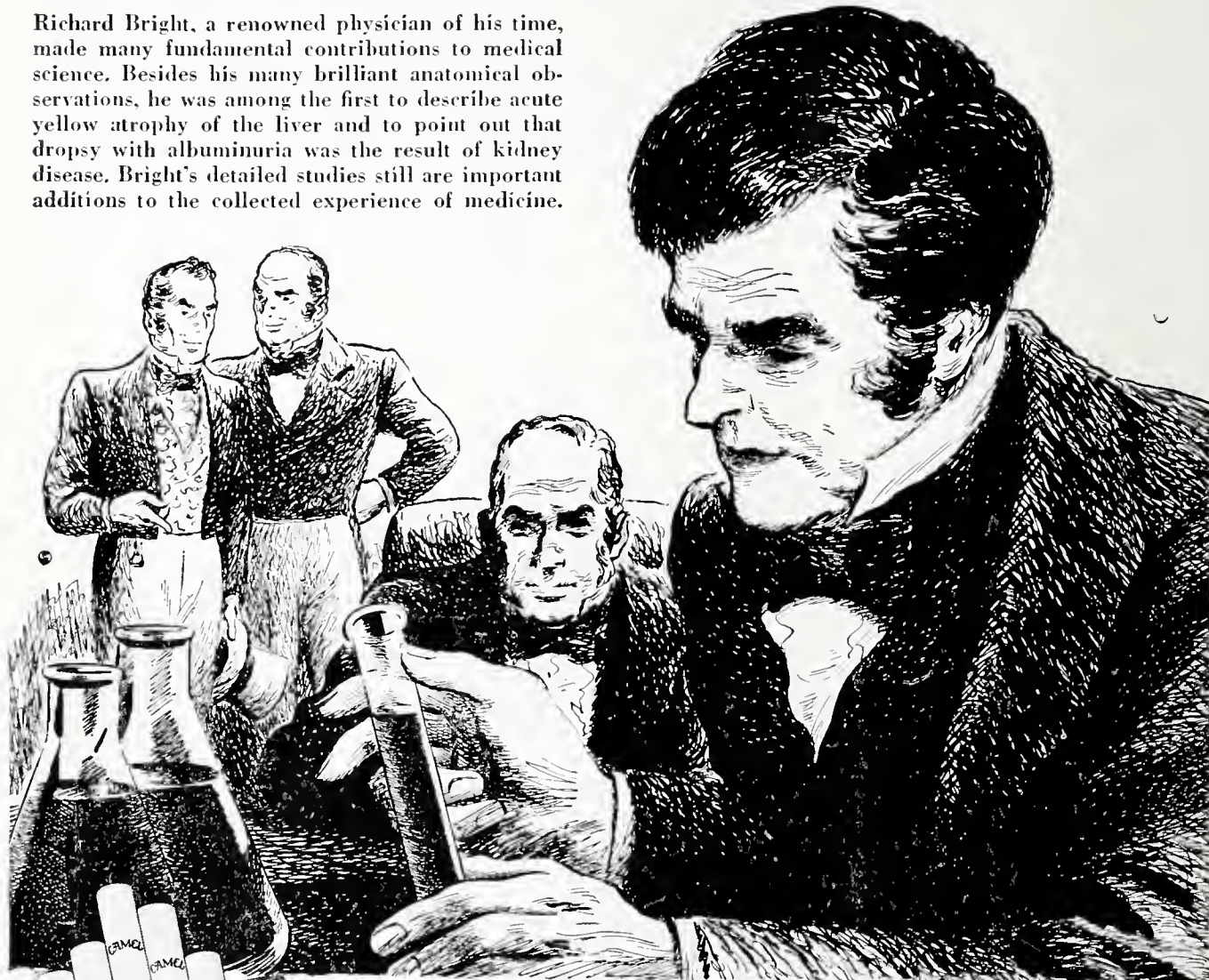
\* Read before seventy-second annual session, Arkansas Medical Society, Little Rock, April 16, 1948.



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What has happened to the physician during those years of advancement? Has he advanced with the scientific age? Has he been provided with facilities for advancement, or has he been given opportunities to advance? Basically, he has advanced with this progress because certain factors involving his daily work have been improved, such as:

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doctor of today, when he enters practice, has had an education second to none, not only in the scientific subjects, but in literary subjects as well, and as progress is made, other essential topics will be added to his curriculum. Post-graduate instruction has been instituted by many medical colleges over the country in response to the demand of the doctor who desires refresher courses. Local and district medical societies have also demanded Post-Graduate Days for their members, so that they may keep abreast of the modern developments in treatment and technique. The national trend is for more knowledge which the practicing physician can take back home and improve his value to his community.

2. **Hospital Development.** The development of the hospital to its present standard has been one of the influential factors in providing education and experience for the physician of today. We do not have sufficient hospitals, especially in rural areas. When this has been accomplished, rural medicine will progress and the individual will benefit thereby.

3. **Research Facilities.** One hundred years ago very little research was being done, and what was being done suffered from lack of material, finances, and technically trained men. Research has made great strides during the past 50 years because it has obtained financial support from various sources. Large pharmaceutical firms have expended vast sums; medical schools have obtained grants for definite research; closer cooperation and the coalition, in many cases, of hospitals and medical colleges which supply facilities which are necessary for research; and, finally, various Governmental agencies have set up research and teaching facilities which can accomplish much which the private group cannot afford to finance.

The development of industry, which needed medical service, has led to the establishment of factory hospitals and research laboratories with well trained personnel. From these have come information as to the toxicity of various materials to which the workman is exposed and the development of methods of treating these conditions if they arise.

4. **Development of New Procedures of Treatment.** Knowing what we do today, if we were to be transplanted back 50 years, we should be at a loss as to how to treat a patient. The development of deep X-ray therapy, elemental radiation, and atomic fission is a remarkable advance over the old hadw power static X-ray machine. What is in the future for atomic power as a medicinal factor is only predictable at this

time and, until further experiments are made available by scientists, it must remain as such. New developments in medicine, surgery, obstetrics, orthopedics, allergies, and ophthalmology have markedly lowered morbidity rates.

5. **Development of New Medicines:**

a. Chemotherapeutic agents—sulfonamides of various types, with which you are familiar. Radiated iodine and phosphorus and atomic energy will play future roles in the treatment of malignancy, anemias, and stimulation of growth factors.

b. Antibiotics, notably penicillin, streptomycin, tyrothricin, and gramicidin, will be improved.

c. Vitamins—closely related to amino acids have a field all their own.

d. Anti-allergic and antihistaminic drugs.

e. Split protein or hydrolyzed amino acids.

f. New drugs for malaria and tropical diseases.

g. Many other scientific drugs and serums.

The next 50 years will be the Age of Scientific Research if future developments are as productive as in the last 25 years. These new developments have aided the physician in the treatment of diseases and they have reduced the mortality rates markedly. For example, in the last 34 years the death incidence from pneumonia and tuberculosis has been reduced by four-fifths and for cardiorenal vascular diseases by one-third.

6. **Development of Public Health Control and Prevention Clinics.** The education of the public is a prime factor in preventive medicine. If more people spent as much time and money in keeping their human machines in as good and efficient working conditions as they do their automobiles and other mechanical machines, we would have fewer chronic ailments and we would prevent many acute ailments.

7. **Diagnostic Methods.** These have been so improved that every physician can have them available if he so desires. This should increase his diagnostic acumen by 80 per cent. What have all these developments done for the individual and the public at large?

a. Life expectancy has been increased from 37 years in 1850 to 65 years in 1947, with a predicted 70 years by 1970. "In ancient Gaul in Caesar's time, expectation of life for an infant was 18 years. \* \* \* In Gaul in 1750, it was 28 years. \* \* \* In America in 1850, 37 years. In 1900, 46 years. In 1944, 64 years. In 1947, 65 years. In 1970, it may reach 70 years."

b. Mortality rates have been greatly reduced. Infant mortality rates have been markedly reduced in the past 25 years.



- c. Morbidity rates have been greatly reduced.
- d. Human physique has been improved.
- e. Periods of confining and hospital stays have been reduced.

f. Better medical service. In fact, the best medical service in the world is available to the American public through its highly trained graduates of medicine.

g. Development of state and community health programs, which are and should be primarily preventive, not curative, in principle.

h. Development of free medical clinics, welfare and health services which provide care for the indigent, aged, blind, and many others who are financially unable to meet the expenses of the present period.

Reliable statistics show that we are the best fed and healthiest nation in the world. They also show that we are the world center for medical education and research. These facts we can be proud of and we may congratulate ourselves on our accomplishments which have been possible because we have, up to now, been smiled upon by free enterprise. Shall the American system of medicine continue to progress as it has in the past 50 years, or shall we become subject to many restricting factors?

In my opinion, there are many things, which, if they become effective, will revolutionize the practice of medicine to such a degree that we shall no longer maintain the world leadership which we hold today. What are some of these factors which are developing currently and gaining momentum and which will alter the course of medicine in the future?

a. Centralization of medicine, leaving rural districts without medical services. This has happened due to the fact that medicine has become a very scientific subject, and graduates of today are trained to use all available clinical and scientific diagnostic procedures to arrive at a correct diagnosis. These facilities are not available in rural communities; therefore, the practice of medicine has become centralized near available facilities. These conditions can be corrected when rural communities make such facilities available to the physician. Recent legislation for aid in construction and development of rural hospitals should be an impetus to all communities to commence such programs. A recent survey by the Ohio State Medical Association of medical students, interns, and residents with regard to rural medical practice, prompted the Council to make the following recommendations, which could be beneficial in all states:

(1) That the subsidization of rural physicians

to encourage them to establish a rural practice should not be undertaken.

(2) That a study be made of the feasibility of establishing some type of rural scholarship in medicine, for boys with good backgrounds, from rural high schools. If such a scholarship be established, no obligation as to repayment of the money, or specification as to type or area of practice, should be included.

(3) That the attention of medical educators be directed to the final paragraph of the Summary, regarding "a revamping of medical school curriculum. \* \* \* to include more about the diagnosis and treatment of the common diseases, and routine office practice"; and that medical schools give greater attention to this problem; also that this matter be brought to the attention of hospitals in the training of interns.

b. Over-specialization. If specialization continues to the point where every doctor is a specialist, the public will suffer. For example, John Doe supposedly has a conjunctivitis, nephritis, myocarditis, hemorrhoids, and a boil. To get cured he must see an ophthalmologist, an urologist, a cardiologist, a proctologist, and a surgeon. The specialist himself will suffer, because these patients will consult osteopaths, chiropractors, naturopaths, and many other faddists. The public also loses that sacred doctor-patient relationship which we have been preaching for ages. Specialization should have as one of its requirements at least five, and preferably ten, years in general practice. This over-specialization is not limited to the medical profession. It is present in the trades as well. If you have had any experience recently in building, you are aware of that condition. In some communities which are over-specialized, the public enters complaints because it cannot find a doctor to make a house call. This is not a healthy condition for the medical profession. When we consider that a normal proportion is 1 specialist to every 4 or 5 general practitioners, as has been stated, I am of the opinion that this proportion should be more divergent. American Medical Association statistics show that there are about 40,000 true full specialists and about 50,000 partial specialists, and 25,000 of these are certified. This is over-specialization and is one of the factors producing the high cost of medical care. Over-specialization causes centralization of doctors, thereby causing a lack of medical distribution into the rural communities. This disproportion has been brought about by our medical schools and hospitals, wherein they have built the curriculum around specialization. The public demands better and more general medical



men, and it is your duty as members of organized medicine to see that this is accomplished. If you fail, socialization of medicine is inevitable.

c. Political encroachment. For many years, since 1912, there has been a movement to subject medicine to some kind of political control, either state or Federal. We have been rather complacent in the past, feeling that such a situation could not develop in a free country such as ours. We felt that our legislators would protect us, and they did in most cases, but with the social changes that have been introduced already and those that are planned for the future, this is not the time to permit ourselves to think we are "untouchables." If we will scan the record of the past years, we shall see that many states have passed legislation granting licenses to limited practitioners of various cults and faddists, both religious and non-religious. Many hospitals not recognized by the Council on Medical Education and Hospitals are in operation. These changes have come to pass through political forces. If federalization of medicine becomes a reality, then both parties concerned—the public and the physicians—will be denied the fruits of progress.

d. Discouragements placed before the young man who desires to go into general practice. The present trend in education for the medical student is one preparatory course for Board certification. The hospital internship is a step toward a Board residency and does not give the student who is going into general practice the desired training. More universities should follow the plan of Colorado University, the University of Kansas, the University of Louisiana, and the University of Kentucky and establish a residency in general practice. All hospitals should have Sections on General Practice and the residency should provide graduate instruction in the various specialties. Many hospital staffs are so over-specialized that the staff appointments are discriminatory, and the man who has started in general practice is denied staff appointments, although his training, diagnostic, and therapeutic ability is often above that of the appointee. Finances often mold the educational course of an individual and over-education does not always make the most successful physician. The young student today who plans to go into general medicine needs encouragement from medical colleges, hospitals, medical organizations, communities, associates, and the public, if we are to fulfill our duty to the country as a whole.

e. Public relations. Good public relations will do more for the practice of medicine than any other single factor. Public relations must

start with the individual physician and his patients, then the local medical society and the community, then the state, and finally, the national associations. As Charles M. Swart has remarked, "Public relations are the sum total of private relations." The sensational, dramatic, and exaggerated stories of some editorial writers about scientific medical facts is often misleading to the public, and the physician is called upon to give his patients the true facts. Give the public the medical truths, and they are comprehensive and cooperative. The American public desires to be self-supporting and not subject to governmental dictates. Public relations should encourage self-reliance and individual thinking.

During this period of progress, how has the general practitioner fared? Up until the first World War he did very well, but since that time and especially during and since the second World War he has been denied many of his just privileges, discriminated against in many cases, had his professional standards encroached upon, and has not been provided with sufficient post-graduate opportunities.

What, then, can be done for the general practitioner? Several local organizations were formed over the country in an attempt to change or combat these encroachments, but these were all local in scope. Many of the problems which concern the individual general doctor can best be handled by concerted and organized action. This has been realized for some time, and it was felt that some organization should be formed which would help and protect and preserve the interests of the man doing general practice. This action was finally culminated on July 4, 1946, after various encroachments on the general practitioner became markedly evident.

### History of the American Academy of General Practice

At the meeting of the American Medical Association's Section on General Practice in San Francisco, July 4, 1946, there was introduced a resolution from the floor requesting the newly elected chairman to appoint a committee to formulate a national organization for general practitioners.

The chairman, Paul A. Davis, M.D., appointed a committee consisting of the following:

Dr. Ivan Heron, California, Chairman.

Dr. H. J. Johnson, Texas.

Dr. Edward Nippert, Los Angeles, California.

Dr. A. F. Frazer, San Francisco, California.

Dr. L. S. Burwell, California.

This committee was instructed to report at a



special meeting called for the following day, July 5, 1946.

On July 5, 1946, the committee reported and recommended the following:

1. That a national organization be formed.
2. That it have as its purpose: "To advance the general practice of medicine and surgery."
3. That the officers pro tem be those of the Section on General Practice: President, Paul M. Davis, M.D.; Vice-President, E. A. Royston, California; and Secretary, W. B. Harm, Detroit, Michigan.
4. That the officers appoint the necessary committees to establish the necessary framework, purpose, scope, standards of eligibility, and financing of a permanent organization, and to report at the next A.M.A. meeting.
5. That the officers take all necessary steps to insure a permanent organization.
6. That the appointed committee establish general practice sections of this society in all states and counties.

This action before the section members was adopted by vote and the president pro tem immediately appointed the following committees:

1. Committee on Membership and Organization: E. C. Texter, Detroit, Michigan; V. R. Bryner, Salt Lake City, Utah; C. O. Hughes, St. Louis, Missouri; W. B. Harm, Detroit, Michigan.
2. Committee on Constitution and By-Laws: Stanley R. Truman, Oakland, California; Ivan Heron, San Francisco, California; E. B. Leland, California; W. B. Harm, Detroit, Michigan; J. Craig Bowman, Ohio.

From July 4, 1946, until June 10, 1947, all members worked hard and diligently, contacting every state in the union, obtaining all information available in regard to general practice. The year's work by the committee culminated on June 10, 1947, at a meeting called at the Hotel Claridge in Atlantic City, New Jersey, where the constitution and by-laws were adopted, officers elected, and the new organization officially started to function as the American Academy of General Practice.

The Academy has no official connection with the American Medical Association, except that Fellows must be members of the American Medical Association. The Academy plans to support the A.M.A. in its high ideals and will also support every other group whose aims are unselfish and for the best interests of individual and public health.

The following officers and Board of Directors were elected and have been functioning efficiently, although the load is heavy:

Officers: President, Paul A. Davis, Ohio; Vice-president, E. C. Texter, Michigan; Treasurer, U. R. Bryner, Utah; Secretary, Stanley R. Truman, California.

Board of Directors: Term expires 1950—Robert M. Lemmon, Ohio; Arch Walls, Michigan; H. T. Jackson, Texas. Term expires 1949—G. Marchmont-Robinson, Illinois; R. C. McElvain, Missouri; D. G. Miller, Jr., Kentucky. Term expires 1948—F. G. Benn, Minnesota; J. P. Sanders, Louisiana; Lester D. Bibler, Indiana.

The objects and purposes of the Academy are as follows:

1. To promote and maintain high standards of the general practice of medicine and surgery;
2. To encourage and assist in providing post-graduate study for general practitioners in medicine and surgery, and to encourage and assist practicing physicians and surgeons to participate in such training;
3. To encourage and assist young men and women to prepare, qualify, and establish themselves in general practice;
4. To preserve and protect the right of the general practitioner to engage in medical and surgical procedures for which he is qualified by training and experience;
5. To advance medical science and private and public health.

The requirements for membership are high but simple. For those older men who may not be able to fulfill the letter of the requirements, but have more than fulfilled them by years of experience and study, the Board of Directors by vote may waive any specific requirement. To be eligible for membership the physician must be engaged in general practice. He must be duly licensed in the state in which he practices, and must be of high moral and professional character. He must have had at least one year of rotating internship at an approved hospital, or the equivalent in post-graduate training. He must have been in general practice for at least three years. (Special consideration is being given by the Membership Committee to military service.) He must have shown interest in continuing his medical advancement by engaging in post-graduate educational activities.

A feature of great interest to prospective members is the requirement that in each three-year period a Fellow must complete 150 hours of post-graduate work. The Membership Committee has not yet published the accepted list of work fulfilling this requirement, but it is expected that the plan will follow somewhat those



of similar local groups who have allowed about one-third of the hours at staff meetings, one-third at conventions, and one-third at post-graduate courses.

The organization of the Academy is patterned upon a combination of the most desirable features of the leading medical organizations and the American Bar Association. The constitution will show that it is both efficient and democratic. Provision is also made in the by-laws for the establishment of state and county branches of the American Academy of General Practice.

Since its inception the progress in organization has been remarkable. After only eight months, the membership is larger than that of any specialty group, and will exceed in six months all specialty groups. The Academy is represented in forty of the states, Hawaii, Alaska, the Philippines, Australia, and the District of Columbia.

Many other changes are taking form—more hospitals are establishing Sections on General Practice, many universities are establishing courses in general practice, and university hospitals in several cases are creating residencies in general practice. Many universities and state medical associations are having instructional courses for the advancement of the general practitioner.

### Conclusion

To be a good general practitioner, you must have many attributes besides your medical education, for your patients hold you in esteem and ask your advice on many things which are not medical. For example:

1. You should be well versed in psychology, psychiatry, sociology, and economics.
2. You should have a knowledge of family life and family relations in the community.
3. You should have a knowledge of the civic and public relations of the community in which you live.
4. You should keep up-to-date on the latest developments in medicine, surgery, and public health and take advantage of all opportunities for post-graduate instruction.
5. You should keep versed in health legislation, both state and Federal.

Question: Who is going to practice medicine in this country, The Doctors, The Hospitals, or the Government?

## SOME PRACTICAL ASPECTS RELATING TO CARCINOMA OF THE SKIN \*

ISADORE MESCHAN, M.D.†  
Little Rock

Carcinoma of the skin presents itself as an unusual and serious problem in Arkansas in view of the high incidence of this lesion in this sunny climate.

It is important, therefore, to arrive at a clear conception regarding its clinical importance.

In reviewing the statistical report of the incidence of malignant tumors of the American Cancer Society for the entire United States for the period, 1938 to 1940, carcinoma of the skin ranked second in frequency in the male, representing 17.4% of all the carcinomata in the male; and it ranked fourth in frequency in the female, representing 11.4% of all carcinomata of the latter group. In the male, it was exceeded only by digestive tract carcinoma; in the female, it was exceeded by carcinoma of the breast, the digestive tract and uterus, in that order of frequency.

Thus, over one-sixth of all cancer cases in the male and one-ninth in the female are cancers of the skin, in this survey. It is probable that the incidence of this lesion is considerably higher than that quoted, in view of the fact that carcinomas of the skin frequently are unrecognized for a considerable period of time and may remain undiagnosed indefinitely, and unrecorded.

In the year 1944, 2½% of all cancer deaths in the male, and 1¼% in the female were due to carcinoma of the skin; and since roughly one death in every eight is a cancer death, this becomes a very appreciable figure. Thus, in the year for which these statistics are given (1944) there were 171,171 cancer deaths and roughly 3,400 of these were due to cancer of the skin.

In the State of Arkansas for the past ten years (1937-1946 inclusive) there has been an average of 51.3 cancer deaths due to carcinoma of the skin each year. Interestingly enough, these have not all been in the white race as is generally conceived. Actually, an average of 46.1 cancer deaths per year, due to cancer of the skin, occurred in the white race and 5.2 deaths per year in the negro race for this ten-year period.

It is difficult to know what percentage of cases of carcinoma of the skin do not receive treat-

\* Presented before the First District Medical Society, October 15, 1947.

† Director, Department of Radiology, University of Arkansas School of Medicine.



ment in this country, but in a survey of cancer deaths in England in 1939, their Ministry of Public Health reported that only 64% of the cancer deaths due to cancer of the skin received treatment of any kind. (1) It is probable that the statistics in this country would be comparable. The reported curability rate of carcinoma of the skin corrected for normal anticipated mortality is approximately 86%. (2) Actually, if this lesion were treated early and adequately, the curability rate should be in the vicinity of 95%.

Thus, it can be seen that from the incidence reported, from the death rate, and from the high incidence of untreated cases, carcinoma of the skin presents itself as an important clinical problem.

I shall not attempt to review the great wealth of literature which has accumulated with regard to the etiology of carcinoma of the skin. The importance of external carcinogenic agents as a causative factor is very marked. Cancer of the scrotum of chimney sweeps, the 200 or more chemical agents which can be carcinogenic, the cutaneous cancer of paraffin workers, cancers in the skin of those who have exposed their skin unduly to X-ray irradiation, and the high incidence of cancer of the skin in the white races living or working in sunny climates (sailors, farmers, etc.) are all obvious examples of this agent operating.

Whether or not these agents operate along with viruses or some hormonal factor or some heredity predisposition has recently received considerable experimental favor. (3) Rous, of mouse-cell sarcoma fame, has recently shown the close relationship of viruses to papillomas of the skin in rabbits. He found that these papillomas of the skin in rabbits could be induced at will this virus. The virus could readily be isolated from these papillomata. However, when these papillomata became epitheliomata and cancerous, a virus could no longer be isolated from them, but these epitheliomata had a very high antibody content to the virus in question. Rous then postulates that although viruses may not be isolated from carcinoma, they may initiate these carcinomata by first initiating the papillomata. When the papilloma becomes a carcinoma, the antibody is present; but the original virus is no longer there. The carcinoma may be further perpetuated by other factors than the virus.

Too much emphasis should not be placed upon the histological variation of carcinoma of the skin. Histologically, we differentiate the basal cell carcinoma, the squamous cell carcinoma, and the metatypical type which is possibly an appear-

ance suggesting a mixture of the two types. It is true that the prickle cells, the cells containing the eleidin granules, and the keratinization and pearl formation distinguish the squamous cell carcinoma from the basal cell type. It is undoubtedly desirable to recognize the rodent ulcer or basal cell carcinoma as a distinct class of epidermal carcinoma, but it is not advisable to lay undue stress on this distinction. Carcinoma of the skin is invasive even though it may not metastasize. Moreover, some carcinomas are rather anomalous in appearance. They may present the appearance of the basal cell type on the one hand, and in other portions of the lesion they may present the squamous cell type. Hence, they must all be regarded as malignant tumors and treated vigorously as such.

The gross appearances of carcinoma of the skin are variable. The tumor may be nodular and protrude outward or it may be depressed and invasive. The tumor may be covered by a thin crust and bleed freely when the crust is removed. The exposed surface of the tumor may have a very irregular fleshy and slightly nodular appearance with a variable color. The edge of the ulcerated portion may be rolled or there may be a gradual tapering off of the surrounding structures.

By and large, a chronic ulcerated and encrusted area of the skin which bleeds freely when the crust is removed must be considered carcinoma until proven otherwise by biopsy. In every chronic and encrusted lesion of the skin, when examining the patient, the crust must be removed. This must be regarded as the first invariable rule in the clinical diagnosis of carcinoma of the skin. Nothing must be considered a hyperkeratosis until the crust has been removed and smooth uninvaded non-bleeding surface of the skin exposed underneath. Even these areas should be treated expectantly if they persist after a short trial on simple mild dermatologic ointment. By and large, even these areas require X-ray therapy for proper treatment. Although very frequently the diagnosis of carcinoma of the skin suggests itself quite definitely by its clinical appearance, nevertheless biopsy is always deemed advisable. Those of us who have insisted on biopsy of every lesion of the skin, suspicious of carcinoma, cannot help but admit that every now and then we have been surprised by the result. Biopsy of squamous cell carcinoma of the skin has proved to be a perfectly harmless procedure in carefully controlled series. (4) There is no indication that biopsy of a squamous cell carcinoma causes its



spread or is otherwise dangerous to the patient. I feel that carcinoma of the skin should be biopsied whenever possible.

In the treatment of carcinoma of the skin, radical removal of the carcinoma is the only type of treatment indicated. That removal may be accomplished either by surgery, by X-ray irradiation, or by radium or radon emanation. In any case whichever treatment is chosen, radical removal is the password. A one centimeter margin of uninvolved skin must be treated all around the tumor depending on the size and the extent of the tumor, and definite attempts must be made to remove or extirpate the lesion at its very base. We rarely, if ever, regret treating a lesion widely, but we do regret recurrences along the margin of a previously inadequately treated area. The recurrences are more resistant than the original lesion; and because of the devitalized tissue immediately adjoining the recurrence, it usually necessitates wide surgical removal, skin graft, and more complicated plastic surgery.

It is also important to examine the lymph node areas draining the cancer's site very carefully, both initially and at three-month intervals for the first year. The control of this tumor spread through the lymphatics and a knowledge of lymphatic distribution is paramount for adequate treatment of cancer of the skin. These lymphnode areas must be examined systematically. The patient must be completely unclothed when this is done. After the first year, six months' examinations are indicated for the next five years. If a recurrence or metastases have not appeared for five years in this type of carcinoma, the prognosis is excellent.

It is probable that complete and radical extirpation and removal of the tumor by either surgery or X-ray irradiation will yield comparable results. The failures by either method result from half-way methods. The method of choice will depend upon the site of the carcinoma, the extent of deformity that is permissible, the extent of plastic surgery that is permissible, and many other factors depending upon the availability of irradiation and the clinical judgment of the physician. On the dorsum of the hand, or in areas where there is not much subcutaneous tissues, it is possible that surgery may be the treatment of choice, in view of the greater incidence of radiation ulcers in this location which heal with difficulty. However, in most other instances radiation is probably preferable to surgical removal.

The problem with lymphnode metastases, how-

ever, is quite different. Wide surgical extirpation, if possible, is the treatment of choice for lymphnode metastases. If complete surgical removal is not possible it is usually found that external irradiation alone is not adequate for complete removal of lymphnode metastases. Usually some form of radium or radon implantation is necessary in addition.

There are various methods of utilizing X-ray or radium in the treatment of skin carcinomata, each method giving equivalent results when properly administered. However, certain types of irradiation are contraindicated according to our present understanding. Radium plaques and molds which do not filter out at least 90% of the beta rays (0.3 mm. platinum equivalent filtration) rely to too great an extent on beta rays rather than gamma rays of radium. As a result, an inadequate depth dose is obtained and hence this method of therapy should not be used. Radium can be used in the form of needles or seeds, but should be used by some one who is familiar with the newer concepts of homogeneous irradiation and adequate tumor dosage based on the concept of the gamma roentgen. When we use radium or radon, we should compute the quantity of radium or radon desired very carefully according to the measurement of the lesion, and the depth of the lesion. We should recognize that we are treating the carcinoma with as sharp an instrument as a scalpel, and, just as in the case of surgical treatment, we must remove the complete tumor in three dimensions. With radium treatment, as with X-ray therapy, we should know exactly what depth and what thickness of tissues we are treating and we should know whether or not a one or a two or a volume type of implant is the most desirable method to employ. If we plan to use X-ray irradiation, we should be thoroughly conversant with the physical aspects of external X-ray therapy. We should be thoroughly familiar with the quality of the X-ray beam we plan to employ, the tissue dosage at every given depth of that X-ray beam, and the tissue dosage most desirable for the given lesion. By and large, the quality of an X-ray beam is described in terms of the thickness of a given metal, usually aluminum, copper or lead, which will absorb 50% of the irradiation, the so-called "half value layer." Thus, when we use 100,000 volts at 20 cm. distance from the skin, over an area 2.5 cm. in diameter:

With a half value layer of irradiation of 1 mm. of aluminum (no added filtration) for every 100 roentgens in air, at 0.5 cm. depth only 68 roentgens are obtained; with a half value layer of



2 mm. of aluminum (1 mm. aluminum filter added), at 0.5 cm. depth 84 roentgens are obtained; with a half value layer of 4 mm. aluminum (120 kv, 3 mm. aluminum filter added), 82 roentgens are obtained **at 1 cm. depth.** The depth dose will, therefore, vary with the quality of irradiation employed. By and large, the minimum half value layer to be safely employed in treating carcinoma of the skin is 4 mm. aluminum. We must calculate beforehand the most desirable roentgen dosage, both from a minimum and from a maximum standpoint and knowing the probable depth of the lesion we must calculate maximum and minimum tumor dosage on that basis.

It has long since been well demonstrated that normal skin will tolerate considerably more irradiation when the latter is fractionated, and less scarring will be apparent. Thus, a single dose of 5000 r on the skin in a small area will produce very severe necrosis of the skin and it will heal with considerable difficulty. However, when this dose of 5000 r is fractionated over a period of eight to ten days, only necrobiosis is produced in the normal skin and the skin invariably heals. Moreover, the fractionated dose will treat the carcinoma during various phases of its growth, and since the malignant cell is more radio-sensitive during the prophase of mitosis than any other, we are able to produce necrosis in more cells when we treat the tumor on several occasions rather than all on one occasion. On the other hand, we also know that a skin cancer may become radio-resistant if subjected to irradiation over too long a period of time, and so we have found that the best treatment time interval for squamous cell carcinoma of the skin is ten days to three weeks. We are able to give five to six thousand roentgens in this interval and know that we can cure 95% of the squamous cell carcinomata locally that way, with a very insignificant number of irradiation ulcers that will not heal. If this amount of irradiation were given at one time normal tissue necrosis would occur.

It is also important to be thoroughly conversant with the sequence of events following X-ray irradiation given properly and adequately. About two weeks after the X-ray course of irradiation has been given, the lesion appears to float on a body of pus. Actually this is not pus in the true sense of the word, but rather necrotic tissue. When the crust is removed, this pus-like material can be washed away and the tumor bed appears rather pale and moist. Eventually the lesion becomes dry and the crust falls off, and

the former tumor bed is covered with a pale epithelium. After a year or two this epithelium is seen to contain telangiectasia and thickened pale epithelium. This skin is always hypersensitive to the sun's rays, and the patient must be advised never to expose this skin to the sun. If this advice is not carried out a secondary breakdown of the skin occurs, which usually takes several months to heal. When a breakdown occurs and persists it must always be biopsied since it may be due to recurrent tumor.

We never seem to have to worry very much about infection in irradiated areas, and when you see pus under the crust after irradiation is not a manifestation of infection, but rather necrosis of the tumor tissue and the tissue response to this necrosis.

In this connection a word about irradiation reactions in general is probably warranted. By and large, the radiologist computes tumor dosage, and tries to deliver to the tumor bed a dosage which will produce a necrosis in the tumor with no permanent damage to the surrounding tissue. Very frequently this requires a maximum dosage of the skin overlying or in the immediate vicinity of the tumor. However, on the basis of experience the radiologist knows approximately how much it will take to produce a severe second degree or blistering reaction without permanent damage ensuing. Thus, following irradiation very frequently one observes severe second degree reactions. Second degree reactions are the rule in irradiation therapy rather than the exception and the radiologist prefers to call this a second degree or "moist reaction," **not a burn.** This reaction course of irradiation has ceased. The lesions usually appear about two weeks after will heal if the irradiation has been properly administered. This reaction is not unforeseen and not a mistake on the part of the radiotherapist. We treat the skin to its maximum tolerance, usually because we know that tolerance as a result of past experience. It is the only way we can hope to eradicate the cancer beneath.

In summary, I should like to say that cancer of the skin is one of our most frequent malignancies in Arkansas, and it must not be regarded lightly. Cancer of the skin can cause death all too often, and must be treated adequately and radically. The cosmetic result obtained is better with irradiation than with radical surgery unless the skill of the plastic surgeon is employed in every instance. Only the specialists should ir-



radicate cancers anywhere, and cancer of the skin in particular. A complete knowledge of the physical and biological aspect of X-ray and radium irradiation is required for the method to be adequately applied. Irradiation must be as precise an instrument of therapy as is the surgeon's scalpel. The best method of irradiation is the Coutard fractional dose method, and not the single massive dose.

By way of conclusion, one should also mention that newer methods have employed radio-active phosphorus in the treatment of carcinoma of the skin. Theoretically this method should never achieve wide usage in view of the fact that radio-active phosphorus irradiation is very superficial in type. If one measures depth dosage in a rabbit's skin one finds that at a depth of 0.5 mm. one attains only 65% of the surface dose of irradiation; at a depth of 1 mm. one obtains only 40% of the surface dose, and at a depth of 2 mm. only 14% of the surface dose is available. Thus, radio-active phosphorus can only be used in very superficial lesions and hence, it should be employed only by one thoroughly familiar with the physics of radio-active isotope emanation.

The usefulness of gamma ray emitters such as radio-active cobalt, gold, or tantalum will probably prove to be very great and indeed may soon be a substitute for radium and radon. This is still highly experimental, and we must await further details before clinical application can be made.

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Temporary approval has been extended by the Council of Medical Education and Hospitals of the American Medical Association to the residency in pediatrics offered at the University of Arkansas Hospital, Little Rock, Arkansas. This action has been taken in concurrence with the American Board of Pediatrics which has indicated its acceptance of a two-year training program.

## FROM THE JOURNAL OF VENEREAL DISEASE INFORMATION

An excellent article on neurosyphilis entitled "Treatment of Neurosyphilis at Hot Springs Medical Center, Arkansas," appears in the June, 1948 issue of *The Journal of Venereal Disease Information*, published monthly by the United States Public Health Service.

Co-authored by George E. Parkhurst, senior surgeon and medical officer in charge of the Medical Center, and Richard Bowman, biostatistician, both assigned to the Center by the Public Health Service, the article compares the progress of 458 neurosyphilis patients treated with penicillin, malaria, or mechanical hyperthermy. The progress of each patient was measured by the spinal fluid examination.

This study, which was carried on for a minimum observation period of six months, excluded any neurosyphilis patient having manifestations of primary or secondary syphilis, and any patient who had received fever therapy within one year before the evaluation was begun.

The 458 cases were divided into three groups: (1) asymptomatic neurosyphilis, early and late; (2) vascular and meningovascular neurosyphilis, and (3) paresis, tabes dorsalis and taboparesis.

"The failure rate was calculated by adjusting for lapse from observation, on the assumption that the same proportion of failures occurred among the cases lapsing as among those who remained under observation."

The authors summarized the article as follows:

1. On the basis of failure rates, penicillin appears equally as effective as the Kettering hypertherm and malaria in the treatment of neurosyphilis.

2. Penicillin eliminates activity in the spinal fluid more rapidly than does hyperthermy or malaria treatment.

3. By the end of 18 months of observation, penicillin treatment reduces the Kolmer test to negativity in a greater percentage of cases than does malaria or hyperthermy.





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EDITORIAL

A GENERAL PRACTITIONER SPEAKS

Much has been written about the general practitioner in recent months, and many word pictures have been drawn to show his way of life, his place in the community, his type of practice. One of the best of these, as printed in the April, 1948, issue of Medical Annals of the District of Columbia, was prepared by Dr. R. Lee Spire of Washington for presentation at a medical meeting. He spoke as follows:

"You have called on me as a general practitioner. I crave your indulgence for a few moments while I talk about me. Not me as **me**, but as a prototype—a composite of the thousands of doctors in general practice all over our land.

"Nearly forty-two years ago I was given the legal right to append the letters 'M.D.' after my signature. For many decades and in many lands thousands of young men have been given the like honor, but I am sure that there was never anyone more proud of that honor than I. I was a doctor—not an 'ist' or an 'ologist,' but just a plain doctor. In the many years that have

session, will be held in Saint Louis November 30-December 3, 1948.

elapsed nothing has ever transpired to lessen that pride.

"I opened an office in a growing community and became a part of the life of that community. As I became known and as my practice grew, I was consulted not only on medical matters but on every conceivable subject. I was a friend of the people in that group, and they were my friends. There was a large parochial school in the neighborhood and the little boys always touched their caps when I passed or spoke to them. As these boys grew to manhood I strove to merit the respect they accorded me as a physician. A kind of flattery?—probably—but I liked it. I did not even mind being called 'Doc.' It meant to me no lessening of dignity. It was more like being called a nickname by some cherished friend. And this mutual respect and friendship paid dividends—dividends to the patients and to me.

"Many times on coming downstairs from the sickroom, mother would have a plate of fresh cookies or a piece of cake and a glass of milk. While enjoying these, there would always be a little chat, and in the confidence begotten by these little intimacies, frequently mother would mention some little thing with an apology for its being trivial—something to which she did not ascribe sufficient importance to justify a visit to the office.

"She might mention that she had found a little lump in her breast, 'Nothing important, Doctor,' but often examination revealed a malignant tumor in time for surgery to prevent an early death from cancer. Or she might tell me that father had felt some twings of pain in his chest while shoveling snow or taking out the ashes. Investigation has enabled me many times to diagnose an early coronary disease and prolong life for a number of years.

"Sometimes it would be that Mary was so tired when she came home from school—her appetite wasn't good, and once or twice there was a flushed face and mother thought there might be a little fever. Examination and X-ray studies made possible a diagnosis of pulmonary tuberculosis before infection by other members of the family occurred, and in time for successful treatment.

"Again it was Johnnie who was having 'growing pains' and could not play ball because of 'shortness of breath.' 'You know, Doctor, he has grown so fast in the past year or two.' Johnnie's trouble was not 'growing pains.' It was a



rheumatic heart disease, and in many instances there was still time to prevent too serious heart damage.

"This patient-doctor relationship has no substitute—it must not be lost. It is the very heart of American medicine. If the art of the general practice of medicine is restored to its proper place and dignity by organization or by swing of the pendulum away from the present tendency to overspecialization, so that more young men are attracted to the field of general practice, this relationship will not be lost.

"We have been, as it were, playing a game of football. For years the general practitioner carried the ball and made all the scores. Lately, however, someone has stolen the ball from us and we are left just looking on. We must carry the ball again. We need the specialists to run interference and block out tacklers that are too tough for us, but the job of carrying the ball is ours and we must get it back. We can get it back only if we can bring about a recognition of the value of the family doctor and restore him to his rightful place in our American life."

—Jo. Kansas Medical Society, July, 1948.

## THE CHICAGO SESSION OF THE AMERICAN MEDICAL ASSOCIATION

11,963 Fellows of the American Medical Association attended the 1948 annual session held in Chicago June 21-25th. The scientific program and exhibits were housed, in large part, at the Navy Pier, although some sections met at hotels. The scientific exhibits were of the usual high caliber with unusual interest attached to television programs which were received at the exhibit hall from Chicago hospitals, and a track meet and athletic performance in which all participants were amputees or otherwise disabled.

The House of Delegates was most busy with the adoption of a new constitution and by-laws, with the consideration of revisions in the code of ethics, with prepayment hospital and medical care plans, with the Red Cross blood bank program and many other matters of vital importance to the profession.

Dr. R. L. Sensenich became President of the Association and Dr. Ernest E. Irons became President-Elect. The next session, the interim session, will be held in Saint Louis, November 30-December 3, 1948.

## FIFTY-YEAR MEMBERSHIP

The 1948 annual session authorized special ceremonies to honor members of the Society

who have been in practice for fifty years at the 1949 annual session.

In order that the committee may properly make plans it is requested that county society secretaries immediately send in the names of their members who qualify for this honor to the office of the state secretary.

## RANDOM THOUGHTS OF THE SECRETARY

June 18th. By rail this afternoon and night to Chicago becoming acquainted, after some time, with those late-hour celebrants who frequent Pullman cars but are absent on the airlines.

June 19th. Registering without having to wait in line at the Sheraton finding President Lutterloh ready for all the sessions. After the entire day with the affairs of radiology down into the loop where we met the visiting proctologists Allen and Crigler and from the latter hearing the tale of how the "cross-roads" doctor, Crigler, senior, avoided the wait to get a room at the Stevens.

June 20th. Down to the Palmer House watching Rhinehart and Shuffield in line for reserved rooms and then back with the radiologists who end sessions tonight in a dinner highlighted by a tribute to Louis Allen. With his Arkansas customs along Bob Robins calls at a late hour asking us to stay up and read the morning Tribune which carries a photograph and interview on him, as it does!

June 21st. To the House of Delegates and again excluded as are others intensely interested in the affairs of medicine and who must perforce obtain such information as is ultra secret (sic) second hand but, at least, the responsibility for the so-called leaks can not be laid on secretaries' shoulders.

June 22nd. Some twenty-five of the Arkansas delegation gather in pleasant breakfast, President-Elect Smith the foil for our trick pencil this time and the rest of the day alternately with the House of Delegates, the Navy Pier exhibits and in the late afternoon to the unused Arkansas room prior to our departure.

June 26th. Dickinson may never be host at a hunt where a deer is killed but we will vouch for the fact that he can, and has, sent us a basket of the most beautiful peaches ever this day and so to intemperate eating.

July 3rd. After years of newspaper columns, dogs-riding-aeroplanes-on-priorities, loans from chain stores, divorces, and the like, it is refreshing to hear Governor Warren say "I'm quite sure they will not," when asked if his daughters will take part in the campaign.

July 6th. To the annual Washington-Benton County Medical Societies picnic, the lengthy holiday season apparently too much for the Benton group as they do not attend. Enjoying the visit with almost a full Washington county attendance and the good picnic provender which the ladies always have on this occasion and back early to the work of the day.

July 15th. President Truman launched the 1948 campaign tonight in the unusual precedent of calling Congress into special session during peace time and from the floor of a political convention, a move which may or may not put the Republicans "on the spot." Certain it is, however, that for the first time in sixteen years the medical profession and the public have the opportunity to choose between the forces favoring compulsory health insurance and those which oppose this scheme.



# TUBERCULOSIS ABSTRACTS

## *A Review for Physicians*

ISSUED MONTHLY BY THE NATIONAL TUBERCULOSIS ASSOCIATION

### BCG VACCINATION IN ALL AGE GROUPS

CG vaccine, prepared under ideal conditions and administered to tuberculin negative persons by approved techniques, can be considered harmless. On the basis of studies reported in the European and American literature, an appreciable reduction in the incidence of clinical tuberculosis may be anticipated when certain groups of people who are likely to develop tuberculosis because of unusual exposure, inferior resistance, or both, are vaccinated.

BCG (*Bacillus of Calmette and Guérin*) is a bovine tubercle bacillus isolated in 1906. The virulence of the organism was reduced by culturing it on a bile potato medium for 13 years. This avirulent organism when inoculated into animals produced local nodular lesions without progression or generalization of the process. Shortly thereafter the inoculated animals showed a measure of resistance to progressive infection with virulent tubercle bacilli. With the assurance that the organism was harmless and that it offered a degree of protection against virulent tubercle bacilli, human application was begun in 1921 in Paris. Since that time it is estimated that some ten million vaccinations have been performed throughout the world.

The study reported here represents the longest continuous experiment on BCG vaccination in the United States. From experience over a period of 13 years, it can be stated unconditionally that BCG is safe, a fact that has had verification the world over.

The major premise of this study was that BCG should supplement present methods of early diagnosis and segregation. The manner of application of the BCG vaccine was by the multiple puncture method. In thousands of vaccinations by this method complications have been practically nil.

The groups studied were:

**1. Newborn Infants**—The children in this group came from households in which no tuberculosis could be demonstrated by roentgen examination. The infants were vaccinated or accepted as controls before they left the hospital, and no isolation was practiced.

There were 1,417 infants vaccinated during the first week of life. Three months later over 99 per cent of these infants had become tuber-

culin positive. Six and a half years after the single vaccination almost 80 per cent of those tested were still tuberculin positive. Among the 1,414 infants in the unvaccinated control group, 44 per cent were positive at the end of eight and a half years. This high rate of tuberculin conversion of the controls indicates the degree of exposure for both vaccinated and control groups.

There were 11 cases of tuberculosis with one death in the vaccinated group and 39 cases with seven deaths in the controls. This study has been in progress for 10 years.

**2. Infants Born of Tuberculous Parents**—Isolation was practiced for the controls and vaccinated alike for a period up to 12 weeks. Children were returned to their families only if examinations of concentrated sputum of the tuberculous member were negative.

There were two cases of tuberculosis in the vaccinated group of which one was hospitalized and none died as compared with five cases in the control group all of which were hospitalized and four died.

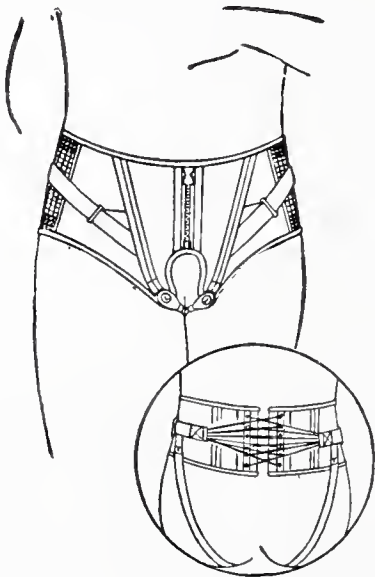
**3. Student Nurses**—Entering students were tuberculin tested and vaccinated and did not go in wards for a month. The vaccinated student nurses worked in the tuberculosis hospital while the control negative reactors did not. Despite the difference in exposure no cases of pulmonary tuberculosis developed among 142 vaccinated nurses and there were three cases in the 199 controls. There were three additional cases among the tuberculin positive reactors. This study has been in progress for seven years.

**4. Medical Students**—These students were X-rayed and tuberculin tested, and 109 negative reactors who desired it were vaccinated. The control group consisted of those who refused.



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Among the vaccinated there were no cases of pulmonary tuberculosis but four cases were reported in the nonvaccinated group. This study was begun seven years ago.

#### 5. Children in a Federal Housing Project—

The entire community was first examined roentgenologically and those with active pulmonary disease were isolated. Alternate children who did not react to tuberculin were vaccinated. In the 625 unvaccinated negative reactors there were four cases of tuberculosis and no deaths. Among the 275 tuberculin positive reactors there were two cases of active tuberculosis with one death. Another death from tuberculosis occurred in a child whose tuberculin reaction was not recorded but whose original X-ray of the chest was negative. There were no cases among the 699 vaccinated children. This study is now in its sixth year.

6. Inmates of a Mental Institution—After a roentgen survey and tuberculin testing, the persons with active disease were isolated. Seven months after retesting, alternate negative reactors were vaccinated. There was no pulmonary tuberculosis in the 20 patients vaccinated and one case of bilateral minimal arrested pulmonary tuberculosis in 15 controls.

The efficacy of the vaccine appears well documented in this study. The morbidity and mortality rates from tuberculosis were reduced appreciably after vaccination. The extent, severity, duration and sequelae of the pulmonary lesions when they did occur in the vaccinated were less extensive, of shorter duration and calcified earlier than those in the nonvaccinated.

The portion of our population who would benefit most by the vaccination would seem to be those from susceptible races and those unduly exposed to tuberculosis in all age groups. It is again stressed that those who are vaccinated should have a period of at least one month before and after vaccination when there is no direct contact with virulent tubercle bacilli.

ECG Vaccination in All Age Groups, Sol Roy Rosenthal, M.D., Eleanor I. Leslie, M.D., and Erhard Loewinsohn, M.D., *The Journal of the American Medical Association*, January 10, 1948.

### OBITUARY

WILFRED R. PARSONS, age 41, died unexpectedly at his home in Little Rock June 13th. Born in Little Rock, he graduated from the University of Arkansas School of Medicine in 1932

and had practiced in Little Rock since graduation with the exception of the four years of service in the Army medical corps during World War II. He confined his practice to pediatrics and was assistant professor of pediatrics at the School of Medicine. A member of the Pulaski County Medical Society, the Arkansas Medical Society, the First Presbyterian church, the Masonic bodies and the Scottish Rite. He was also president of the Exchange club. Surviving relatives are his wife, a son and a daughter and a brother, Dr. John E. Parsons, in practice in Little Rock.

DAVID TROY CHEAIRS, age 62, died at his home in Little Rock May 28th. A graduate of the University of Arkansas School of Medicine in 1914, he first practiced in Southeast Arkansas prior to location in Little Rock in 1924. He was a member of the Pulaski County Medical Society, the Arkansas Medical Society, the Asbury Methodist church and had served as medical examiner for the Workmen's Compensation Commission for several years. Surviving relatives are his wife, two daughters and a son, Dr. David B. Cheairs, of Little Rock.

JOHN HENRY MOORE, age 80, died at his home in Delaware July 16th. A native of Yell county, he attended the University of Tennessee School of Medicine and had practiced in Yell and Pope counties for 54 years. He was a member of the Pope-Yell County Medical Society, the Arkansas Medical Society and of the Masonic lodge. Surviving relatives are his wife and a son.

JAMES J. HUDGINS, age 59, died at his home in Paragould June 12th. Born at Harrison, he graduated from the University of Arkansas School of Medicine in 1912 and had practiced at Halliday and Marmaduke before locating at Paragould in 1928. He was a member and past-president of the Greene County Medical Society, a member of the Arkansas Medical Society, a fellow of the American Medical Association and a member of the Paragould School Board. Surviving relatives are his wife, a daughter, a son, and two brothers, one of whom, Dr. A. H. Hudgins, is in practice at Searcy.

WILLIAM A. PICKENS, age 64, died at Bentonville June 10th of a heart attack. Ill for several years, he had continued in practice. Born in Pea Ridge, he graduated from the University of Arkansas School of Medicine in 1910 and began practice at Bentonville the same year. He was a member of the Benton County



Medical Society, the Arkansas Medical Society, of the Masonic lodge and was a member of the board and of the staff of the Bates Memorial Hospital. Surviving relatives are his wife, a son, Dr. James L. Pickens, who is in practice at Rogers, and a daughter.

OSCAR GRAY, SR., age 73, died at his home in Little Rock July 1st. Born in Caldwell, Louisiana, September 19, 1874, he attended the Arcadia (Louisiana) Military Academy and graduated from the University of Arkansas School of Medicine in 1904. He served the medical school for ten years as professor of gynecology. He was a staff member of Saint Vincent's Infirmary and of the Baptist State Hospital, a member of the First Christian Church and of the Pulaski County Medical Society and of the Arkansas Medical Society. Surviving relatives are his wife, four sons, of whom two are physicians, Dr. Oscar Gray, Jr., Little Rock; Dr. Paul M. Gray, Durham, N. C., and three daughters.

EDWARD MARTIN MIERS, age 63, died at Mena July 9th after a long illness. Born September 28, 1886, in York County, Nebraska, he had his preliminary education at Manhattan, Kansas, and graduated from the University Medical College of Kansas City, Missouri, in 1920. He had postgraduate work in various centers and located at Mena in 1940. In addition to his membership in the Polk County Medical Society and in the Arkansas Medical Society, he was a fellow of the American Medical Association and of the International College of Surgeons. At the time of his death he was serving his third consecutive term as president of his county medical society. Surviving relatives are his wife and a son.



## HORMONE THERAPY FOR BREAST CANCER IS STILL EXPERIMENTAL

The Therapeutic Trials Committee of the Council on Pharmacy and Chemistry<sup>1</sup> warns of the grave dangers associated with the treatment of mammary cancer with estrogens and androgens. These are palliative and experimental, not curative. The approved treatment of curable lesions is radical surgery, with or without roetgen radiation. While there is hope of cure, give no hormones. The palliative symptomatic relief of hormone therapy should be reserved for patients whose disease has progressed beyond the possibility of cure.

Within those limitations, estrogens and androgens may be given with some hope of symptomatic relief in cases selected carefully. Androgen may be administered, regardless of the age of the patient with metastatic lesions of the bones. The dose is 100 mg. of testosterone propionate parenterally three times a week for ten weeks, followed by a maintenance dose of 60 mg. of methyl testosterone a day for ten weeks. In responsive patients, after two or three weeks, pain decreases, the appetite improves, weight increases, sleep becomes natural, there is renewed interest in life, and a general improvement comparable to that following castration in cases of cancer of the prostate. Androgen usually has no influence on the primary malignant disease of the breast or on soft tissue metastases in older women; it has masculinizing effects; often causes a disturbing increase in sexual libido, and it should be used cautiously in women with a high serum calcium.

Estrogen therapy in mammary cancer has been found most beneficial in lesions of the soft tissues in older women. Regressions following estrogen treatment have been noted in the primary tumor, soft tissue recurrences, and in lymph node and pulmonary metastases. Other temporary benefits include occasional relief of pain in osseous metastases, a sense of well-being, improved hemopoiesis, a better appetite, and gain in weight. The dose of estrogen usually is 10 to 15 mg. of diethylstilbestrol a day. Estrogen therapy for carcinoma of the breast should never be given to any patient who still menstruates or who has menstruated within a period of five years. It accelerates the rate of growth of the carcinoma.

In brief, hormone therapy has limited symptomatic usefulness in hopeless cases of cancer of the breast; androgen for lesions of the bones, and estrogen for lesions of the soft tissues.

<sup>1</sup> Council on Pharmacy and Chemistry, Report of the Council, Estrogens and Androgens in Mammary Cancer, J.A.M.A. 135:987 (Dec. 13) 1947.



## PERSONALS AND NEWS ITEMS

Dr. and Mrs. Fred Krock, Fort Smith, spent a recent vacation at Lake Charles, Louisiana.

Miles F. Kelly, North Little Rock, has been elected surgeon-general, Arkansas Department, American Veterans of World War II.

Henry Hearnberger has been elected president of the Stephens Lions Club.

Leston E. Fitch has moved from Crossett to El Dorado.

M. A. Kellett, Jr., has moved from Paragould to Marmaduke.

C. C. Long has been elected vice-president of the Ozark Rotary Club.

R. B. Robins, Camden, has been elected speaker of the Congress of Delegates, American Academy of General Practice.

H. E. Murry, Texarkana, took a course in operative surgery at Cook County Hospital, Chicago, recently.

E. A. Mendelsohn, Fort Smith, has passed examination as a diplomate of the American Board of Radiology.

The following attended the sessions of the American Proctological Society in Chicago during June: Hoyt R. Allen, Little Rock; M. S. Craig, Jr., Little Rock; J. R. Crigler, Alma, and Ralph E. Crigler, Fort Smith.

A. C. Parker, Jr., of Clarkedale, is taking a two-year residency in pediatrics at Memphis.

R. B. Robins, Camden, and G. L. Kimball, DeQueen, attended the sessions of the American Academy of General Practice in Chicago during June as delegates from the Arkansas chapter.

R. B. Robins, Camden, addressed the Annual Conference of County Society Officers at Chicago June 20th on "Legislative-Political Responsibilities of Medical Societies."

The following were registered at the Chicago session of the American Medical Association: Hoyt R. Allen, Little Rock; J. R. Barnett, Arkadelphia; B. Z. Binns, Eudora; R. L. Bryant, Arkadelphia; W. R. Brooksher, Fort Smith; G.

E. Cannon, Hope; A. E. Cox, Helena; M. S. Craig, Little Rock; J. R. Crigler, Alma; R. E. Crigler, Fort Smith; A. M. Davidson, Hot Springs; S. Z. Faier, Fort Smith; Ross Fowler, Harrison; W. A. Fowler, Fayetteville; D. W. Goldstein, Fort Smith; J. H. Growdon, Little Rock; M. L. Harris, Newport; C. R. Henry, Little Rock; R. W. Hipsley, Crossett; M. B. Hoge, Fort Smith; G. L. Kimball, DeQueen; L. J. Kosminsky, Texarkana; J. S. Kootsey, Hot Springs; Glenn Johnson, Little Rock; L. H. Lanier, Texarkana; N. J. Latimer, Corning; D. C. Lee, Hot Springs; P. W. Lutterloh, Jonesboro; L. H. McDaniel, Tyrone; I. Meschan, Little Rock; E. A. Mendelsohn, Fort Smith; B. J. Reeves, Little Rock; D. A. Rhinehart, Little Rock; J. T. Roberts, Little Rock; R. B. Robins, Camden; Euclid M. Smith, Hot Springs; J. A. Shuffield, Little Rock; J. E. Stevenson, Fort Smith; Joe Verser, Harrisburg; C. R. Williams, Morrilton, and T. E. Williams, Newport.

C. Randolph Ellis has moved from Fordyce to Malvern.

BORN—On June 28th, a daughter, Karen Anne Kramer, to Dr. and Mrs. R. G. Kramer, Fort Smith.

C. W. Dixon has been elected president of the Gould Lions club.

A. J. Sneed has been elected a director of the Conway Lions club.

Samuel B. Thompson has completed his residency in orthopedics and has opened an office for practice at 412 Donaghey Building, Little Rock.

C. Lewis Hyatt, Monticello, attended the recent meeting of the American College of Chest Physicians held in Chicago.

James Guthrie has moved from Texarkana to Camden.

Raymond C. Cook has moved to his new building at 601 Scott Street, Little Rock.

Rector C. Hooper, formerly of Batesville, is now located at Gorgas Hospital, Ancon, Canal Zone.

The following appointments to the faculty of the University of Arkansas Medical School have been announced: Carl E. Duffy, formerly associate professor of bacteriology, Wayne Univer-



sity, professor and head of the department of bacteriology and parasitology; James H. Growden, associate professor and acting head of the department of oncology, a newly established department; Harry J. Clausen, formerly associate professor of anatomy at the University of Colorado School of Medicine, associate professor of anatomy; James S. Dinning, assistant professor of biochemistry, and James O. Ferguson, instructor in the department of anatomy.

Asa C. Watson, formerly of the State Hospital staff, has accepted appointment on the staff of the Mississippi State Hospital at Whitfield, Mississippi.

Louise M. Henry, Fort Smith, is taking the three months ophthalmological study council course at Portland, Maine.

John M. Samuel, Little Rock, attended the reunion of the First Armored Division at Louisville during July.

W. B. Grayson, Little Rock, has accepted appointment with the Veterans Administration as cardiologist.

J. C. Gladden, who has been serving a residency at University Hospital, Little Rock, has located at Harrison.

Carl L. Wilson, Fort Smith, spent a recent vacation in New York and Massachusetts.

Dr. and Mrs. John Redman, Fort Smith, spent a recent vacation on the Mississippi Gulf coast.

Dr. and Mrs. Hugh Johnson, Fort Smith, spent a recent vacation in the West.

## PROCEEDINGS OF SOCIETIES

The Pope-Yell County Medical Society met in dinner session at Russellville with the scientific program consisting of a motion picture of cancer of the breast

W. O. Young, Secretary.

The Five-County Medical Society met in dinner session at the Garner Hotel, Nashville, June 10th for the following program: "Diagnosis of Common Neurological Problems Commonly Overlooked," Robert Watson, Little Rock; "Anal Abscess and Anal Fistula," M. S. Craig, Jr., Little Rock; "Present Trend of Treatment of Cancer of the Prostate and Bladder," H. King

Wade, Hot Springs National Park, and "A Surprise Talk," E. L. Callahan, DeQueen. The Society will next meet in Ashdown September 10th. Norman W. Peacock, Secretary.

Geo. M. Love has been elected secretary of the Benton County Medical Society to succeed G. C. DeBolt who has moved to Little Rock.

The Craighead-Poinsett County Medical Society met in dinner session at Jonesboro July 1st for the following program: "Address," Hon. E. C. Gathings, and "Fads and Quackery in Medicine," Joe Roberts, Memphis.

J. H. McCurry, Secretary.

The Lawrence County Medical Society was addressed at Walnut Ridge July 13th by L. H. McDaniel, Tyronza, on "Medicine's Youngest Science—Geriatrics."

Chas. D. Tibbels, Secretary.

Dallas County Medical Society has elected the following officers: President, H. H. Atkinson; Vice-president, W. S. Ellis; Secretary-Treasurer, James Estes; Delegate, H. H. Atkinson, and Alternate, James Estes.

## WOMAN'S AUXILIARY NEWS

Mrs. Carroll Shukers was installed as president of Pulaski County Medical Society Auxiliary at a tea at the Dr. Charles Minor Taylor Memorial Home May 19, 1948. Other officers installed were: Mrs. J. Harry Hayes, president-elect; Mrs. J. K. Donaldson, first vice-president; Mrs. Erner Jones, second vice-president; Mrs. Raymond Cook, secretary; Mrs. Harvey Shipp, treasurer; Mrs. Mahlon Prickett, publicity secretary; Mrs. Fred Harris, parliamentarian; Mrs. Paul M. Fulmer, corresponding secretary and Mrs. J. Palmer Sheppard, historian.

New members are: Mrs. W. E. Morris, Mrs. W. C. Corwin, Mrs. Joseph T. Roberts and Mrs. H. H. Growdon.

Hostesses were: Mrs. Charles Wickard, chairman; Mrs. Robert Thompson, Mrs. Curtis Jones of Benton, Mrs. Erner Jones, Mrs. W. L. Sadler and Mrs. S. C. Fulmer.

Music was provided by an antique music box owned by Mrs. Robert Thompson.

Saturday, May 8, 1948, the Washington County Medical Auxiliary held an informal hour for high school graduates in an effort to re-





**MRS. MASON G. LAWSON**

Little Rock

**PRESIDENT**

Woman's Auxiliary to the Arkansas Medical Society  
1948-1949

cruit nurses. Individual invitations were mailed to the girls and there were twelve who attended. There were three nurses who spoke informally to the girls; one from the Veterans Hospital, one from the Public Health Department and one from the City Hospital. Each girl had the opportunity to ask questions and there were bulletins available from the Schools of Nursing in Arkansas. Several of these girls had already enrolled in Schools of Nursing and the others assured us that they were planning to train for the Nursing profession.

Mrs. W. A. Fowler, Mrs. Ralph Weddington, Mrs. W. J. Stocker and Mrs. Jeff Baggett served as hostesses representing the Auxiliary.

Betty Jean Stocker, Secretary.

Medical Dames, wives of faculty members of University of Arkansas Medical School, wives of staff members of Trinity Hospital and doctors at Fort Roots were guests.

Report of the Annual Session of the Woman's Auxiliary to the Arkansas Medical Society—April 15-16. Albert Pike Hotel, Little Rock.

The 24th annual session of the Auxiliary to the Arkansas Medical Society convened in Little Rock, Thursday, April 25th at the Albert Pike Hotel at 2:00 p. m.

The meeting was called to order by Mrs. J. K. Donaldson, President, of the hostess auxiliary. Invocation was given by Mrs. John M. Smith, Little Rock. Mrs. Gordon P. Oates gave the address of welcome.

Mrs. Donaldson introduced the State President, Mrs. W. J. Hunt, who then presided. A response to the address of welcome was given by Mrs. M. C. Crandall of Wilmot.

Mrs. Hunt appointed the following committee on Resolutions: Mrs. C. E. Kitchens, Mrs. R. C. Dickinson, Mrs. L. J. Kosminsky.

The following proposed change in the By-Laws, as recommended by the Executive Committee, was adopted: Under Chapter VII, Section 1, the paragraph reading, "The membership dues to the Woman's Auxiliary to the Arkansas Medical Society shall be one dollar (\$1.00) per year per capita, this to include the dues to the American and Southern Medical Auxiliaries," shall be changed to read: "The membership dues to the Woman's Auxiliary to the Arkansas Medical Society shall be two dollars (\$2.00) per year per capita, this to include the dues to the American Medical and Southern Medical Auxiliaries," and subscription to the American Medical Association Auxiliary publication"; Section 2, in the paragraph reading, "members-at-large shall pay their dues of one dollar (\$1.00) per year not later than March 1st to the State Treasurer," shall be changed to read, "Members-at-large shall pay their dues of two dollars (\$2.00) per year not later than March 1st to the State Treasurer."

Reports of Officers, Committee Chairmen and Councillors were given, which were accepted. Mrs. Donaldson announced her special Convention Committees, with Mrs. J. Harry Hayes as General Chairman.

At the second general session which convened at 9:30 Friday, April 16th, Dr. L. T. Evans, President of the Arkansas Medical Society, gave a very timely and interesting address.

Reports of County Presidents were given and accepted.

Mrs. R. E. McLocklin, Chairman of Registration and Credentials, reported that 151 members and visitors had registered.

The Secretary read the report of the nominating committee, and the following officers were elected: President, Mrs. Mason G. Lawson, Little Rock; President-elect, Mrs. L. K. Hundley, Pine Bluff; First Vice-president, Mrs. Charles R. Henry, Little Rock; Second Vice-president, Mrs. Warren



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Memorial Session was held in conjunction with the Medical Society at Robinson Auditorium.

At the beautiful appointed luncheon at the Little Rock Country Club, Mrs. Hunt gave a report of the activities of the Auxiliary for 1947-48. She reported a net gain in membership of 40 members, with 540 total membership. One new county Auxiliary was organized, one was reorganized. 301 Hygeia subscriptions were reported. There were 75 subscriptions to the bulletin. \$296.50 was contributed to the Student Loan Fund; \$765.56 to the Erle Chambers Memorial Library Fund; \$18.50 to Jane Todd Crawford Fund. Mrs. Hunt also reported that doctors' wives served their communities by serving on health committees in other women's organizations, in cancer and tuberculosis clinics, Red Cross and crippled children's drives, blood plasma and mosquito control programs, nurse's recruitment, hospital boards, providing layettes for hospitals, bringing cheer to underprivileged at Christmas, in community chest drives, and sponsoring emergency room at convalescent homes. Programs were held on legislation, current events, articles from Hygeia, Arkansas Health Plan, Doctor's Day, talks pertinent to community needs, and others.

The incoming officers were installed by Mrs. C. W. Garrison, Little Rock, after which Mrs. Mason G. Lawson, President, gave her address, and announced Committee Chairmen for 1948-49. The post-convention Board Meeting was held with Mrs. Lawson presiding.

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## ARKANSAS STATE BOARD OF HEALTH

June 26, 1948.

Dear Doctor:

There will be a post-graduate pediatric course given by the Pediatric Department, University of Arkansas School of Medicine, the Maternal and Child Health Division of the Arkansas State Board of Health and the Arkansas Medical Society at the University of Arkansas School of Medicine from 1 p. m. Thursday, November 4, to noon Saturday, November 6, 1948.

This course will cover practical aspects of

pediatrics and pediatric problems peculiar to the State of Arkansas. Preliminary topics for discussion are: Premature care with demonstrations, care of full-term newborn, contagious diseases, general medical problems of heart and kidney disease, etc., and other such problems of similar nature.

There will be no charge for this course.

Three prominent guest speakers, particularly adapted to partaking in this kind of program, will be brought here from other parts of the country. We have in mind as guest speakers: Dr. Ethel Dunham, Children's Bureau, Washington, D. C.; Amos Christie, Professor of Pediatrics, Vanderbilt University, Nashville, Tennessee and Dr. Arild Hansen, Professor of Pediatric, University of Texas School of Medicine, Galveston, Texas.

On the afternoon of November 6, there will be a football game here at the new municipal stadium between Arkansas University and Rice University; you may care to attend this.

At this time we would like to get a preliminary idea of how many will attend so we can make arrangements accordingly. Please answer with the enclosed post card. This does not obligate you finally. An announcement of the course will be sent out in September for your final answer. We will appreciate a prompt answer.

Sincerely yours,

Frances C. Rothert, M.D., Director,  
Division of Maternal and Child Health  
Arkansas State Board of Health.

Wm. A. Reilly, M.D., Professor and  
Head Pediatric Department, University of  
Arkansas School of Medicine.

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## SYPHILIS RECORDS OF ARMY PERSONNEL

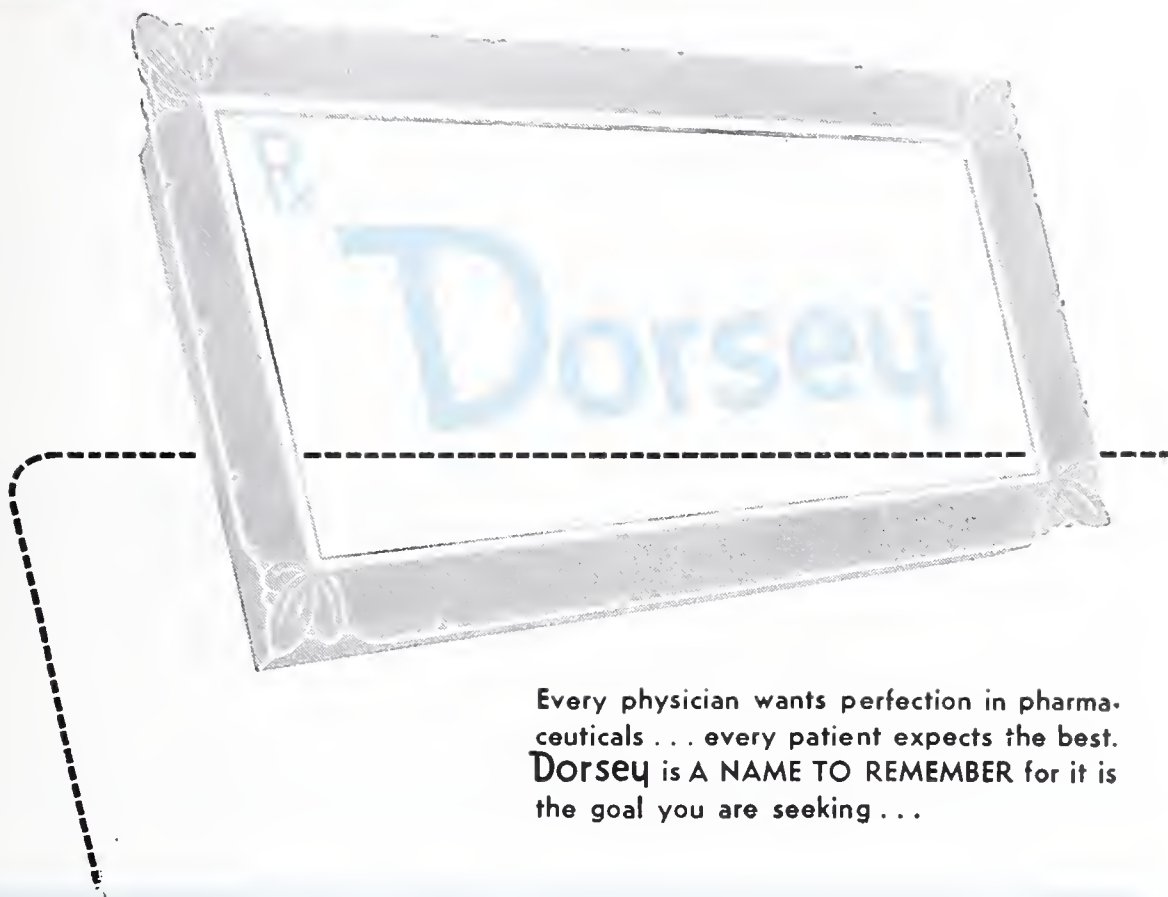
To the Editor:

"The Veterans Administration has in its custody the majority of syphilis records of those Army personnel who were treated for this disease while in active service, and in many instances can procure informative data from the syphilis records of other than Army personnel. It is thought that many physicians treating veterans for syphilis as private patients would find a resume of the syphilis record useful since the details of treatment, results of spinal fluid examinations, and blood serologies are incorporated in the records.

Resumes of these records are available to physicians who are treating such veterans provided authorization for the release of the data



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is given by the veteran. Requests for the resumes accompanied by an authorization for the release of the data, dated and signed by the veteran, should be addressed to the Dermatology and Syphilology Section, Veterans Administration, Munitions Building, Washington 25, D. C. It is most important that the veteran's Service Serial Number and other identifying information, such as the date of enlistment, the date of discharge, rank, and organization be included.

Ordinarily, the resumes can be furnished in approximately two weeks from the date of the receipt of the request and signed authorization."

Sincerely yours,  
PAUL B. MAGNUSON,  
Chief Medical Director.

### BOOK REVIEW

**The Acute Bacterial Diseases**—Their Diagnosis and Treatment: By Harry F. Dowling, M.D., F.A.C.P., Clinical Professor of Medicine, George Washington University; Chief, George Washington Medical Division, Gallinger Municipal Hospital. With the Collaboration of Lewis K. Sweet, M.D., Chief Medical Officer in Pediatrics and Infectious Diseases, Gallinger Municipal Hospital; Adjunct Clinical Professor of Pediatrics, George Washington and Georgetown Universities; and Harold L. Hirsh, M.D., Assistant Professor of Medicine, Georgetown University; Director of the Bacteriology and Immunology Laboratory, Georgetown University Hospital. 465 pages with 55 figures. Philadelphia and London: W. B. Saunders Company, 1948. Price \$6.50.

This volume is a practical discussion of bacterial diseases, old and new knowledge combined, presenting diagnosis by a prominent symptom, location or association, in a valuable chapter on the systematic study of the case. Treatment is well presented in five chapters, all practical points are detailed. The book deserves a place in the working library of all physicians concerned with bacterial disease.

**Clinical Diagnosis by Laboratory Methods**—A Working Manual of Clinical Pathology: By James Campbell Todd, Ph.B., M.D., Late Professor of Clinical Pathology, University of Colorado School of Medicine; Arthur Hawley Sanford, A.M., M.D., Professor of Clinical

Pathology, Mayo Foundation, University of Minnesota; Senior Consultant, Division of Clinical Laboratories, The Mayo Clinic; with the Collaboration of George Giles Stilwell, A.B., M.D., Division of Clinical Laboratories, The Mayo Clinic. Eleventh Edition. 954 pages, with 397 figures. Philadelphia and London: W. B. Saunders Company, 1948. Price \$7.50.

This is the eleventh edition of this popular and authoritative work and it maintains the standards which have always been associated with the text. Sections on animal parasites have been added and the book has been generally expanded. To the physician, medical student or interne engaged in individual laboratory duties, this book gives the indications for the various tests, the manner of their performance and what the results mean and does all this well.

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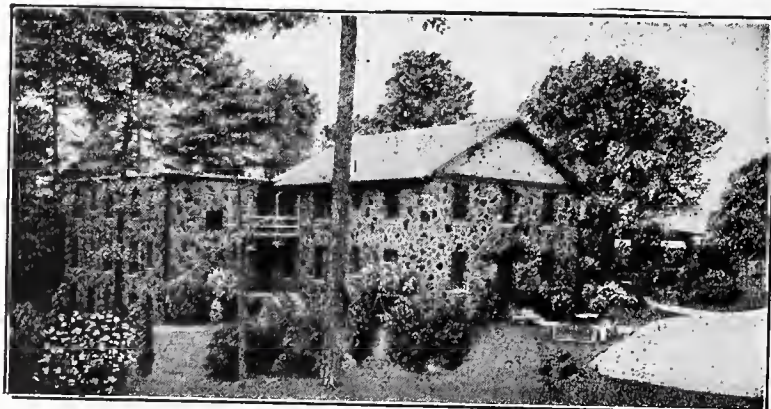
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**DR. M. J. L. HOYE, Supt.**

*Fellow of the  
American Psychiatric Association*



SEP 14 1948

University of California

# The JOURNAL OF THE ARKANSAS MEDICAL SOCIETY

Vol. XLV

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No. 4

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Laryngoscope, Feb. 1935, Vol. XLV, No. 2, 149-154; Laryngoscope, Jan. 1937, Vol. XLVII, No. 1, 58-60; Proc. Soc. Exp. Biol. and Med., 1934, 32-241; N. Y. State Journ. Med., Vol. 35, 6-1-25, No. 11, 590-592.



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FORT SMITH, ARKANSAS, SEPTEMBER, 1948

No. 4

### THE NEUROLOGICAL SIGNS OF EARLY POLIOMYELITIS\*†

LEWIS J. POLLOCK, M.D.

Chicago

Poliomyelitis is a systemic infectious disease, at times producing paralysis as a result of involvement of the nervous system.

Romer says "the most important prodromal symptoms are those connected with the nervous system. Without any definite psychological disturbance there is a certain degree of somnolence, rarely convulsions and tremors occur (they are noted more frequently by the older writers); of particular importance is a general tenderness of the whole person; this is characteristic and was observed by Heine, Duchenne and others. Even a light touch causes pain which is increased by passive movement, particularly if the spine be involved in the movement. Spontaneous pain occurs in the limbs and in the neck and back; the spine feels stiff. There may be tenderness to pressure of the nerve trunks."

Wickman says that as a rule the disease begins "quite suddenly with fever and malaise. Tenderness is a frequent and prominent feature. Pain, headache, stiffness of the neck and spontaneous pain in the limbs appear.

The sensorium and behavior of the patient may be affected very early and at times lassitude and drowsiness are the first symptoms. The patient is apathetic and wants to sleep all the time. The apathy may result in a stuporous condition, rarely with typhoidal appearance. Some patients are extraordinarily irritable and fretful when aroused, complaining, at times excited. Others are extremely restless, wide awake, with hyperactive mentality. The drowsiness may last from two or three days to a week. A tendency to delirium is seen at times, hysterical laughing or crying has been noted and the presence of

confusion. Coma rarely occurs except in lethal cases. Delirium may accompany high fever. At times maniacal like outbursts have been recorded, and at times delusions.

The child often tosses about from side to side, not lying in one position more than a few minutes, sitting up, standing up, with the head turning in a perfectly purposeless way. Often the child lies on the back without an effort to move, the face showing apprehension. Often only the eyes are moved and not the head, the child being acutely attentive to all that goes on. A frog-like position, with slight flexion and eversion of the legs may be seen. A peculiar tired, wilted expression, with a drowsy almost sleepy condition, from which the patient may be roused by manipulation, is noted by Peabody, Draper and Dochez.

The first signs may be those common to all illness in children. A change in disposition, disinclination to play, irritability, crying at night, grinding of the teeth, peevishness, dissatisfaction and crossness.

Muscular twitching, tremor and jerky movements are seen in from 20 to 40 per cent of the cases. Muscular twitching was observed in only 31 of 100 cases reported by Armstrong, in 20 of 90 cases reported by Fraser, and 64 of 400 reported by Wilson who found 113 cases of tremor in the same series. The tremor occurs at times in single muscles or groups of muscles of the extremities, often preceding the paralysis by twenty-four to forty-eight hours. At times the tremor could only be demonstrated when the fingers were outstretched. Walshe describes the tremor as a jerky one, appearing when the patient is handled or makes voluntary movements. Zingher found both fine and coarse tremors, especially in the fingers and hand or in entire extremities. Collier in a small series called especial attention to the tremulous condition and peculiar twitching, tremulous, convulsive movement of certain groups of muscles, lasting a fraction of a second to a minute or so, elicited by stroking the skin with the finger, by movement of the bed clothes over the sensitive skin, or by

\* Read before the Seventy-second Annual Session, Arkansas Medical Society, Little Rock, April 18, 1948.

† The Department of Nervous and Mental Diseases, Northwestern University Medical School, Chicago, Illinois.

Aided by a grant from the National Foundation for Infantile Paralysis, Inc.



effort of the patient to coordinate. He noted it twelve hours to three days before paralysis, increasing as point of paralysis approaches. Fischer likewise considered this of great value. Draper attributes great importance to the appearance of ataxic tremor and twitching, which he feels represents the early intoxication of the anterior horn cells and precedes the paralysis. At times the extremity being the most tremulous is the one to be paralyzed.

Walshe correlates such signs as headache, pain in the back and limbs, rigidity of the spine with resistance to passive flexion, muscular twitchings, and a jerky tremor, irritability, stupor and changes in the cerebrospinal fluid with the stage of invasion of the subarachnoid space.

In children old enough to locate pain, it is frequently an overshadowing feature of the disease. At other times it is trifling. It may appear as headache, which may be occipital and of a severe throbbing character. It may be frontal, severe and persistent. Pain may occur in the neck, along the spine and down the legs to the heels and soles, in the extremities, chiefly the legs, and in the abdomen. According to La Fetra and Schwarz it is very frequently present at the back of the knees and calves. In certain instances when the pain and tenderness have been disproportionately great some cases have been classified as neuritic, but Collier points out that this type is only some variety of the spinal type with a great deal of pain. It often resembles rheumatism, but the deep reflexes in ordinary painful states are invariably increased throughout the course of the disease. Occasionally the pain is most excessive in an extremity which later becomes paralyzed. The pain commonly is diffuse and continuous. At times the diffuse character of the pain has suggested influenza, but Ruhrah says that severe pain should speak against such a diagnosis. When the pain occurs in the abdomen it may be so severe that appendicitis may be diagnosed (Le Boutillier). Often the pain is more severe at night. Weisenburg in his series found that the pain came on after paralysis in most adults, lasted a week or two, or would at times disappear suddenly. At times the pain shortly preceded the paralysis.

Hyperesthesia and tenderness are often included with pain in the description of the symptomatology. Hyperesthesia was present in 75 per cent of the Hesse Nassau cases. In some cases there is hyperesthesia to the slightest touch, in others tenderness to pressure and manipulation to the muscles. Armstrong noted no case of hyperesthesia of the skin. Wickman, how-

ever, noted many cases in which the slightest touch was painful, at times moreover mere approach to the bed gave rise to anxiety and protest, and the patients were unable to tolerate the contact of bed clothes. More frequently, however, tenderness to pressure over muscles and tendons, and at times nerve trunks, has been present as well as to manipulation of joints.

Tenderness may last from two to three weeks to, rarely, several months. Sensitiveness of spinous processes may be noted.

In 1914, Fraser described the pain which ensued when passive movements stretched tendons or capsular structures. During the acute stage it occurred frequently in limbs that at no time showed paralysis and on the other hand it could be elicited in limbs that were totally paralyzed. After the acute stage was passed, the capsular structures, tendons and muscles appear to stiffen. The tenderness was usually localized more to the region of joints, and occurred in joints the muscles controlling which were completely flaccid as well as at joints where the muscles were only partially affected, and simulated the joint pain of an arthritis without local points of tenderness on pressure. Properly, we believe, he attributed the pain to changes in joints, tendons and muscles and not to a lesion of the upper motor neuron.

Recently a great deal of attention has been directed to the concept or misconception that muscle spasm is a constant and important factor in the residual disability of anterior poliomyelitis. "Paralysis is unfortunately a feature of this disease, but paralysis proves after all to be a minor consideration in most cases of infantile paralysis. Muscle spasm, mental alienation and incoordination are far more damaging to bodily mechanisms." This hypothetical spasm is said to be "characterized by shortening of the skeletal muscles which appear in the acute stage of the disease and may persist for many months or years. The muscles in spasm are painful to stretch or pressure and may often be weak or even completely paralyzed."

It was felt desirable to ascertain again if muscle spasm occurred during the development of paralysis, whether it was in any way related to paralysis; whether there was any muscle tenderness, or any pain consequent to stretching of muscles during the same time.

Eleven neurologists were rotated in tours of duty day and night for 30 days in the Chicago Municipal Contagious Hospital. Frequent examinations of 32 muscle groups of each patient were made from the time of entrance to the



hospital following the diagnosis or presumption of acute anterior poliomyelitis.

For the purpose of this report only muscle spasm, tenderness in muscles and pain elicited by stretching a muscle have been analyzed. Muscle spasm was interpreted to be reflected by the accepted neurological definition of a sustained reversible tetanic contraction of a muscle or in lesser degree, resistance of a muscle to pressure. The types of muscle spasm ordinarily attributed to meningeal reaction common to all types of inflammatory diseases of the brain and cord as rigidity of the neck and spine, Kernig's and Brudzinski's signs were not considered. In the study of pain produced by stretching a muscle the stretches were both rapid and slow. When pain resulted from stretching a muscle, it occurred only after the muscle had been stretched most of its potential stretch distance and only in the last period when the muscle might be stretched a distance usually not exceeding an inch.

The results of this study showed that in no instance was there evidence of muscle spasm.

Tenderness occurred in eight per cent of a group of 16 with resulting severe muscle paralysis; with total muscle group examinations numbering 2,919. It never exceeded 25 per cent at any time.

In this same group stretch pain was elicited in only three per cent of muscle group examinations numbering 2,653. It never exceeded 15 per cent at any one time.

In a group of 14 where the muscles remained unparalyzed or only slightly weak, tenderness occurred in only 1.5 per cent of 5,952 muscle group examinations and stretch pain was practically absent.

Stretch pain and tenderness occur more frequently in completely paralyzed muscle groups but in only a small percentage of the total muscle group examinations during the development of paralysis.

Both tenderness and stretch pain occur at a time when paralysis has fairly well progressed. With some exceptions, stretch pain usually begins only when paralysis has reached its peak and often when it has begun to recede.

Where spontaneous pain has been absent pain could be produced by passive movements, especially of the vertebral column, particularly anteflexion of the spine and attempts to evoke Kernig's sign. The pain elicited by anteflexion of the cervical spine induces resistance and gives rise to what has been termed the "spine sign" by Draper, which was found by Armstrong in 82

per cent of cases and lasted several days. Stiffness of the neck is found in the majority of cases in some series. At times this rigidity is semi-voluntary, less frequently it is completely involuntary and rarely opisthotonos is seen. Aycock says, "the patient tilts the head on the neck but does not bend the neck on the shoulders. As a result, the head can be brought about half way upward, when resistance is encountered and the child complains of pain." More constant and characteristic is the stiffness of the back. The patient is unable to sit up and bend the head on the knees. If they bend at all it is at the hips, the spine being held rigidly. Anteflexion of the spine may produce pain in the lumbar region. In contrast to the rigidity of the neck to anteflexion, Hoyne and Ruhrah call attention to backward falling of the head when the patient is raised by placing the hands under the shoulder. Ruhrah says "if the child is told to raise the head when it is sufficiently conscious it will hold it forward a moment or so and the head will again fall back." He considers this as a sign of great importance in the meningeal form of this disease.

Objective sensory disturbances are rare usually associated with a transverse myelitic form of the disease.

Convulsions are unusual. Many older authors described the twitching in the extremities as convulsions. At times they have been described as being only tonic and not associated with loss of consciousness. Wilson reported six in 400 cases and of these two had previous convulsions. In 719 cases Weisenburg observed only nine with convulsions, three being seen in hemiplegic encephalitic form. He says it is also noteworthy that many cases admitted during the epidemic with a history of convulsions proved, on further study, to be some type of meningitis. La Fetra and Schwarz observed 51 cases with convulsions in 745 cases, a rather high percentage.

Disturbances in bladder function are rare but a certain number of cases are always observed. Usually retention is observed for a short time, ordinarily not exceeding 48 hours. Armstrong noted 16 cases in a series of 100, Gordon nine in 100, Wilson 21 in 400. La Fetra and Schwarz noted it only once in 684 cases.

### Paralysis

In the literature the paralysis has been described to be ushered in suddenly. At times with no demonstrable premonitory symptoms, "the paralysis of the morning," which is rare. Usually premonitory symptoms of the stage of invasion or the preparalytic stage are present



from one to seven days, rarely longer but it has been noted to be as long as 21 days.

Armstrong notes paralysis in 70 per cent by the third day and in 95 per cent by the fifth day. Paralysis is often ushered in suddenly, but paralysis may be immediately preceded by a weakness which may be demonstrated only by the patient being unable to bear his weight. When permitted to attempt to walk some patients show an ataxia. The initial paralysis, as observed in the majority of cases, proved to be the final extent. Spiller felt that the paralysis, preceded by weakness, required several days for its full development but rarely was it progressive over more than two weeks. Wickman said it was very seldom complete at the beginning, usually increasing rapidly in extent and severity. Collier has noted of these spreading cases that when the paralysis has remained the same for a number of hours it spreads no more. In any case once improvement begins there is no further increase of paralysis. After reaching its height the paralysis begins to recede. As a rule, the distal muscles recover first, the upper before the lower extremity.

In our study weakness was noted as early as six hours after onset and severe paralysis as early as 18 hours after onset. In other cases from then, more and more muscles become weaker and weaker until the peak of total weakness of all muscles was reached, at the 144th hour after onset. The peak of weakness of the various muscles was not reached immediately but preceded by varying degrees of weakness until the peak, in our cases, of a degree of 0 - 1 - 2 was reached. This peak, occurred in practically all between the 75th and 150th hour, in 14 between the 75th and 125th, and 16 between the 125th and 150th hour, in only two did it occur under 50 hours.

Once weakness occurred it did not regularly progress to the peak of paralysis of that muscle in all cases. The weakness increased at times diminished, again increased and then either continued to increase or partly disappear. This variability from hour to hour was the striking observation in our study. In about two-thirds of our cases once the peak was reached and in these cases 0 - 1 - 2 degrees of paralysis, it remained at that level through the remaining time of observation. However, in a third of the cases, it often improved and finally became worse, or became better than fluctuated and finally was better. The initial paralysis often was not of the degree at the termination of observation in many cases. This early paralysis followed by

various fluctuations was observed in a number of cases. It does not always hold true as stated by Collier that when paralysis has remained the same for a number of hours it spreads no further. It is not true that once improvement occurs there is no further increase in paralysis; in about one-fifth of the muscles studied improvement most certainly had occurred and the muscle finally became quite weak or paralyzed.

The literature shows that this type of paralysis is characteristic. It is a flaccid one, with atony, loss of deep reflexes, and is followed by muscle atrophy. After the tenth day reaction of degeneration is found. Very rarely is an increased deep reflex found in a paralyzed extremity except in spastic paralysis due to cerebral involvement and myelitis above the level of the reflex arc examined. The superficial reflexes likewise disappear, although Wickman has found conserved abdominal reflexes when the abdominal muscles were paralyzed. Weisenburg said he has never found this to be true. When observed, the Babinski sign is usually due to meningeal involvement.

One of the characteristics of the paralysis is its bizarre and unsystematic distribution. It picks out predominately the peroneal, quadriceps and deltoid muscles. Many fantastic combinations are seen, as right shoulder and left leg; both thighs, both legs and left forearm; both arms, the face and left thigh; both thighs and left leg; the external rectus and a leg. The paralysis is rarely complete in an extremity; the proximal muscles are more frequently affected. When a certain group of muscles are severely paralyzed the adjacent ones may be little affected.

At times, especially in infants and young children, it may be difficult to discover the paralysis. Although able to move their extremities about in bed, the patients may be unable to stand. Passive movement is unresisted by the toneless muscles, and the force of gravity is not resisted by the paralyzed ones when occasion arises. When the lower extremity is passively flexed, for example, and suddenly released it falls into a position of abduction or slides into an extended position. Planter stimulation, slight pricking with a pin or tickling is not followed by withdrawal, or certain muscle groups are not seen to contract when others do.

### Reflexes

Ed. Muller and Wickman have called attention to an initial increase in the deep reflexes in the preparalytic stage. The increase may extend into the paralytic stage most often in those in



whom paralysis is slight, or in the legs when only the arms are involved, or in those in whom spastic paralysis is seen as the result of pyramidal tract involvement and in meningitic cases. Weisenburg likewise noted exaggerated deep reflexes, as do many others. Regan and Armstrong noted their diminution just preceding paralysis.

This is the usual observation and even persistence of a deep reflex during the paralytic stage is rare indeed. When found it indicates a rapid recovery (Collier) or involvement of the pyramidal tract. Ankle clonus is indeed rare, although it has been noted early by Foerster, Weisenburg and others. Regan said it was often simulated in painful cases, which is likewise true of the false Kernig sign. The planter reflexes are exaggerated in the preparalytic stage, accompanied by withdrawal of the entire leg. A Babinski sign has been noted in the preparalytic stage and usually indicates a meningitic form of the disease.

It has been said that absence of deep reflexes is the rule. They may be normal in the bulbar cases. When only one leg is paralyzed the other knee jerk may be normal, and if only the arms are paralyzed the knee jerks may at times be present, rarely exaggerated. Even if the only facial muscles are paralyzed the knee jerks may be absent.

#### Deep Reflexes

In our study the reflexes disappeared in 12 cases before the 50th hour. Of these 41 per cent of the muscles terminated in complete paralysis. When the deep reflexes disappeared (in nine) from the 50th to the 75th hour, 50 per cent of the muscles terminated in complete paralysis, from 75 to 100 hours (in 18) 38 per cent resulted in complete paralysis, and (in seven) from the 100th to 125th day, 28 per cent resulted in complete paralysis. When reflexes were found to have disappeared only after the 125th hour in 12 instances none developed any significant weakness. Weakness is in this description designated according to Lovett's scale.

There was found as great a fluctuation in the state of deep reflexes as paralysis, so that reflexes may disappear, reappear and again disappear. When a long period of hours of continued absence of a deep reflex finally ensued then if the continued absence began at some time following (the first observation of an absent reflex) the strength of the muscle at the end of this period of observation was five in three, four

in seven, three in two, two in one, one in two and sixteen were completely paralyzed.

As time lengthened for the continuous absence of deep reflexes the strength of the muscles did not diminish to the degree as in cases with earlier continued loss of a reflex.

When no continued loss of deep reflexes were observed, then at the end of the period of observation, the strength of the muscle was five or normal in 42 cases, four in six cases and three in three cases.

In the cases where no residual paralysis resulted, no loss of a deep reflex occurred in up to 100 hours (164 reflexes examined), in six per cent of 51 examined between 100-130 hours. In only 3.1 per cent were they found absent in all examined up to the 200th hour and they were increased in 57 per cent.

In severe paralysis of the lower extremities, the abdominals disappear in 85 per cent up to the 100th hour, with severe paralysis of arms not lower extremities they are absent in 14 per cent, with no paralysis of arms or legs they disappear in 1.5 per cent. With paresis only of lower extremities they disappear in 7.1 per cent and with no paralysis in 2.6 per cent.

#### Plantar Reflex

In none of the cases was there a paralysis of the flexors of the toes. The plantar reflex never disappeared when only the upper extremities were paretic or when neither upper or lower extremities were paretic. Moreover, when the lower extremities were severely paretic it did not disappear and remain absent, it disappeared, reappeared and fluctuated throughout. It was absent, however, at various times in 35 per cent of 179 examinations of severely paretic extremities, in 2.3 per cent of moderate weakness in the lower extremities. It was brisk in 25 per cent of the severely paretic lower extremities, 64.5 per cent of moderate weakness, 85 per cent when only the upper extremities were affected, and 64 when none affected.

The Babinski sign was found in 28 per cent of 481 patient examinations. They were found in all groups in the severe paralysis of the lower extremities in 2.3 per cent of 179 examinations, in 0.4 per cent of moderate paresis, in 1.8 per cent of paralysis only of upper extremities, and 1.2 per cent of where no paralysis occurred.



## OFFICE ANESTHESIA\*

MAHLON D. PRICKETT, M. D.

Little Rock

The three original inhalation anesthetic agents are now over a hundred years old. These drugs are still adequate for the needs of most modern surgical procedures. Nitrous oxide, ether and chloroform if given with sufficient oxygen and through a free and unobstructed airway do not compare unfavorably with the performance of more modern drugs. Procaine is about fifty years old. These are the agents that will serve most safely for present day anesthesia in office practice.

Newer drugs, combination of drugs, more complicated apparatus and technics have added to the complexity of modern anesthesia. Today a patient may be given a combination of two or more drugs of more than one technic may be used during the process of one surgical operation. The patients response to all these pharmacological agents and his physiological response to the surgery will present many confusing symptoms. The interpretation and intelligent treatment of these symptoms are the functions of the specialist in anesthesiology.

Nitrous oxide is an excellent analgesic agent. The induction is pleasant and recovery is quick. It is not inflammable. Some apparatus will be necessary to administer this gas. It should not be used in concentrations of over eighty per cent. The use of heavier concentrations will produce asphyxia since these concentrations will be at the expense of the oxygen. No anesthetic should be given which does not allow the patient to inhale at least twenty per cent oxygen. The use of nitrous oxide should be limited to operations which require minimal relaxation. It is useful for inducing the patient to ether anesthesia.

Ether provides very satisfactory relaxation and it is still our safest drug for inhalation anesthesia. This vapor is inflammable and when mixed with oxygen becomes highly explosive. Induction and recovery are both slow with this drug. The nausea and vomiting from ether makes it unpleasant to receive. The open drop method is especially adapted for infants and children. This method may be used on adults but they may also be given this drug with nitrous oxide and oxygen by means of a simple gas machine.

Procaine yields good analgesia and relaxation and requires very little equipment for its admin-

istration. It should find its greatest use in office anesthesia. With ordinary precautions this drug will prove a safe agent. The technic of local infiltration and regional field blocks can be found in many modern textbooks and can be easily mastered. I would limit the amounts to be injected to the following figures:

2%.....	50cc. or 1gm.
1%.....	150cc. or 1.5gm.
1/2%.....	400cc. or 2gm.

Procaine reactions are rare but are often fatal when they do occur.

Prompt and intelligent treatment may prevent many of these fatalities. There is simultaneous collapse of both the circulation and respiration so that death occurs very quickly. It is imperative that both systems receive prompt and effective support. Artificial respiration with oxygen should be initiated at once. The circulation should receive some vasopressor substance. Ephedrine sulphate in fifteen milligram doses may be given intravenously at brief intervals until the blood pressure returns to near normal. The convulsions that are so often present in this condition may be controlled with the intravenous administration of some barbiturate, preferably some short-acting member of this group of drugs. This should be given even to the point of respiratory arrest if necessary to subdue the convulsions. Of course, the artificial respiration should be continued in this event. Some protection will be gained against these seizures if the patient receives some barbiturate before the injection of procaine. Many reactions can be prevented. One should not be satisfied with one aspiration for blood. After the needle has been introduced and one aspiration has been done a second aspiration should be done when this needle has been rotated through one hundred eighty degrees. You will be amazed at the number of times you will get blood on this second aspiration. If you have not received blood on either aspiration you can be sure that your needle is not in a blood vessel. Careful dosage should be observed in the topical application of local anesthetics. Reactions often arise from too much absorption of the drug from a very vascular area such as the throat or the urethra.

The use of chloroform or ethyl chloride in the office is not without danger. Divinyl ether (Vine-thene) is useful for inducing the patient to ether anesthesia. All these drugs are very potent and produce a rapid induction and quick recovery. They are not unpleasant to receive. They give good relaxation. Chloroform is not inflammable; vinethene and ethyl chloride are inflammable. Cardiac arrhythmias are common with chloroform

\* Read before the Seventy-second Annual Session, Arkansas Medical Society, Little Rock, April 17, 1948.



and ethyl chloride in light anesthesia and ventricular fibrillation may occur early. Prolonged anesthesia with chloroform and vinethene can cause permanent liver damage. These drugs are best confined to short procedures, i.e., to procedures that do not last over twenty minutes.

Sodium pentothal anesthesia in office practice is an extremely hazardous procedure. This drug is a thiobarbiturate, and like all barbiturates it is primarily a hypnotic. It is a poor analgesic agent. To achieve surgical anesthesia with this agent, massive doses are required which approach the lethal dose so closely that there is very little margin of safety. Sodium pentothal is best given in combination with some good analgesic agent such as nitrous oxide or procaine. Two administrators are recommended, one to watch the airway and the other to administer the drug. The laryngeal reflex is hyperactive with this drug, and tracheal reflexes are still active during surgical anesthesia. Anyone using pentothal should be skilled in doing endotracheal intubations and should have such equipment as is needed for this act available for immediate use.

Unless the trachea has been intubated before surgery, pentothal should not be used in the following situations: (a) in operations in the nose, mouth or throat where pus or blood will be present, (b) in operations which include the dilatation of the anal sphincter or the stripping of perianth, (c) in operations on a patient in the prone position, and (d) in operations on patients who have acute or chronic respiratory infections.

Sodium pentothal is usually given in solutions of two and one-half per cent in distilled water. It is given intravenously or by rectum. Sloughs have occurred when this drug was allowed to extravasate outside the vein. Induction with pentothal is extremely pleasant and it occurs quickly. Recovery is also pleasant but slow. There is rarely any nausea or vomiting from this drug.

All patients receiving a general anesthetic should have an empty stomach. Suction apparatus should be at hand during anesthesia to clear the airway of foreign material. Artificial airways to prevent respiratory obstruction should be available. All patients receiving any of the agents discussed here should be given preanesthetic medication consisting of morphine and atropine or scopolamine. Anyone engaged in anesthesia should be skilled in performing artificial respiration with oxygen and should have for this purpose the necessary equipment conveniently at hand.

I have with me today a very simple and economical apparatus for this purpose. It consists of a small tank of oxygen which can be opened and

## SCHOOL HEALTH SERVICE RECOMMENDATIONS \*

The Conference on the Cooperation of the Physician in the School Health and Physical Education Program held in Highland Park, Ill., Oct. 16-18, 1947, resulted in the following recommendations of interest to all physicians concerned with school health work:

1. In order that a school health program may be kept continuously in proper relationship with public health services, welfare services, medical and dental services and all the health resources of the community it is essential that some form of community health council, bringing together representatives of all local groups with definite health responsibilities, be formed.

2. Wherever there is a school, the local community should budget for a school health program in the department of education, in the department of health or in both. In that budget there should be adequate provision for the salary of a well qualified medical adviser serving the school full time or part time as the need requires.

3. Every school system should have an advisory school health council, every school a health committee, every local medical society a school health committee. In some instances such committees or council can best be developed within the frame-work of an already existing plan of organization.

4. The physician's time in the school can be best utilized (a) if he is employed as school medical adviser rather than school medical inspector; (b) if the routine medical examinations, whether done by the family physician or the school physician, are spaced at three-year intervals during

\* Reprinted with additions from the Organization Section of The Journal of the American Medical Association, November 22, 1947, Vol. 135, pp. 778 and 779.

can deliver oxygen to a rubber breathing bag by way of a rubber tube. The breathing bag is connected to a face mask which should fit snugly over the patient's nose and mouth. There is a rubber artificial airway attached which should be inserted in the throat before the mask is applied. Once the airway is clear and the breathing bag and mask applied and filled with oxygen, it is a very simple act to squeeze on the bag to inflate the lungs. This method is easy, quick and effective. I recommend some such equipment for this purpose and I urge each practitioner to use this in his practice where anesthesia may be employed.



the school life of the child; **(c)** if pupils in need of special examination and advice are carefully selected by the teacher and made the subject of a physician-teacher conference, and **(d)** if non-medical portions of the routine examinations are delegated to teachers and nurses, reserving for the physician only those portions which he alone is equipped to do.

5. Since immunization is necessary for protection particularly in the infancy and preschool period, the schools should definitely discourage the practice of postponing inoculation to the period of school entrance.

6. It is essential that teachers be aware of the physical handicaps of their pupils. Results of medical examinations of her pupils should therefore be interpreted to the teacher in the physician-teacher conference, making certain that the teacher thoroughly appreciates the importance of safeguarding all matters of a confidential nature.

7. Instruction as to the need and value of voluntary planning for medical, dental and hospital expenses through prepaid programs should be stressed in the high school curriculum.

8. Cumulative health records should be a part of the child's total school record throughout his school life.

9. In determining the content of the physical education program the physical education teacher, the physician and the pupils should all play an appropriate part.

10. Physicians and physical education teachers in the various communities should arrange joint meetings for the discussion of such problems as the individual-adapted physical education program and the classification of pupils for physical education activities.

11. In those communities where graded types of physical education activities adapted to the varying needs of pupils are available in the school, permanent and blanket excuses from physical education should rarely if ever be given.

12. All school health service personnel should have experience in field work as a part of their preservice training.

13. Medical schools should give additional training to medical students in regard to **(a)** the relation of the physician to the school and the community; **(b)** the physiology of exercise and the function of physical education in the life of the child; **(c)** the pediatric examination as the model for school examinations, and **(d)** how the

school physician may function as a medical adviser rather than a mere medical inspector.

14. Schools of public health should give increased emphasis in their training of health educators, physicians and nurses to **(a)** school health, **(b)** the basic philosophy of general education, and **(c)** school organization and administration.

15. In every community there should be planning and inservice training conferences, institutes and workshops involving teachers, physicians, nurses, dentists, dental hygienists and others interested in the community health program to work out problems related to that community.

16. There is urgent need for research into many phases of school health service and particular need for evaluation of procedures not only in terms of defects found and remedied but also in terms of educational outcomes in the child, increased understanding of the child by the teacher and increased provision of special programs of education for the exceptional child.

17. A joint committee composed of representatives named by the American Medical Association and the American Association for Health, Physical Education and Recreation (perhaps as a subcommittee of the Joint Committee on Health Problems in Education of the National Education Association and American Medical Association) should be appointed to draw up recommendations regarding **(a)** the administration of the individual-adapted program of physical education, **(b)** the medical examination and guidance of athletes.

18. Authoritative committees already functioning should be asked or new committees should be formed to study **(a)** posture, **(b)** the effects of vigorous physical activities on the cardiovascular system, **(c)** psychologic attitudes of participants toward physical education activities and **(d)** energy expenditure in the various types of physical activities.

19. State and local medical societies and associations should be urged to plan jointly with their health department, education department and education association for the development of conferences at the state and local levels which are comparable to this conference at the national level. It is suggested that the needs of rural schools should receive special consideration.

**Note:** The full report of the Conference is in the process of printing and will be available shortly at a nominal charge from the Order Department of the Association.



# THE JOURNAL

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## EDITORIAL

### A FAMILY DOCTOR

What this country needs is a good family doctor. We should educate our people to recognize their need and train our doctors to fulfill it. It is unfortunate that many articles written for lay publications lead patients to believe that the "best medicine," meaning diagnosis, treatment, and prevention, is available only at the great medical centers or from an endless succession of specialists. Articles on cancer and allied diseases come readily to mind. Most of these articles are written by individuals sincerely interested in reducing the tragic toll of cancer morbidity and mortality; a few are written by persons more interested in changing the face of American medicine. We need our medical centers for teaching, for research, for proving adequate methods of diagnosis and therapy, and for the special handling of certain illnesses which cannot be treated adequately or practically by an individual physician or even a small community hospital. Cancer is at current writing an ailment which falls sometimes but not always into this category. We fervently hope that before very long the riddle of this dread disease will be

solved. Until that happy day let the medical center furnish the family doctor with every available means for early diagnosis so that having diagnosed cancer he may at once utilize the best available therapy. It is our firm belief that a family doctor trained in a grade "A" medical school and constantly keeping abreast of the newer developments in his profession can function adequately as a cancer detection unit and that this readily available help should be drawn to the attention of the public.

Let us acquaint the laymen with the modern family doctor, not a general practitioner in the sense that he will try his hand at anything from piercing Aunt Ella's ears to removing Johnnie's gangrenous appendix on the kitchen table—it is obvious that this romantic figure of another generation has no place in modern medicine—but a family doctor well trained in the art and science of his profession, who might state his credo somewhat as follows:

1. I believe that I commit grievous error when I fail to diagnose acute infections because I deprive my patient of proper treatment which will prevent a fatal outcome, eliminate complications and shorten the duration of the disease, and I deprive his family of proper protection against contagious contact.
2. I believe that I commit grievous error when I fail to recognize an acute surgical condition of the abdomen because I deprive my patient of life-saving surgery.
3. I believe that I commit grievous error when I fail to diagnosis tuberculosis and syphilis because I deprive my patient of very beneficial treatment if not complete cure and also because I fail to prevent the spread of these serious diseases to others.
4. I believe that I commit grievous error when I fail to diagnose diabetes or pernicious anemia because I deprive my patient of life-saving treatment and the chance of enjoying a life almost as completely normal as that of an entirely well person.
5. I believe that I commit grievous error when I fail to diagnose cancer in its earliest stage because I deprive my patient of his only hope of curative therapy. I recognize my responsibility in this serious disease which must be diagnosed even before symptoms call attention to it.
6. I believe that I commit grievous error when I fail to diagnose functional illness and even worse when I diagnose it as organic and



treat it as such. This cannot help my patient; it will inevitably magnify his illness, and will make it infinitely more difficult for any subsequent physician who makes a correct diagnosis to have any success in treatment. (This group is tremendously important, for their number is legion and their psychologic invalidism is just as serious if not more so than is the plight of the cancer patient, since functional illness can last a long lifetime and have most serious repercussions for patient, family, and friends.)

7. Above all, I believe that I commit grievous error when I fail to recognize my own limitations in diagnosis, prevention, or treatment and thereby jeopardize the health, happiness, and sometimes the very life of my patient, whose welfare should be uppermost in my mind.

If with the above thoughts in mind a family doctor faces his daily tasks, any family may feel secure in his care and such a doctor will find in his life-work intellectual and spiritual satisfaction that will far exceed material reward. So we say again—what this country needs is a good family doctor.—Westchester (N. Y.) County Medical Society Bulletin.

### SOUTHERN MEDICAL MEETING Miami, October 25-28

Housing, both transient and permanent, is still critical throughout the United States; and hotel rooms are at a premium in every large city. The South has had its own heavily increasing pressure of expansion of population since the war. The now great size of the attendance at Southern Medical meetings makes its particular housing problem one with which few cities in its territory can cope. The hotel situation is improving slowly but will no doubt continue to offer difficulties for a number of years to come, and thus to limit the possibilities of selection of a convention city for the second largest general medical group in the Americas. These factors were essential influences upon the Executive Committee of the Association in its choice of a convention city.

The Executive Committee was unanimous in its acceptance of the invitation of the Dade County Medical Association to meet in Miami at this time. This will be a happy choice for physicians of the South. Programs and plans are now well under way for the forty-second annual meeting, and every sign points to a high attendance and a great scientific exposition.

### YOUNG DOCTORS OWE SERVICE TO ARMED FORCES, SAYS EDITORIAL

Thousands of young doctors educated at government expense in wartime training are now obligated to volunteer for service in the armed forces, points out an editorial which appears in the August 7 issue of *The Journal of the American Medical Association*.

A critical shortage of military doctors is expected to exist as soon as men are inducted under the new Selective Service Act, the editorial says.

Although the act does not include a draft of doctors, President Truman "may again insist on such a draft," if enough doctors do not volunteer to meet the needs of the services, the editorial says.

As many as 6,000 doctors may be needed, the majority by the army and the air force, *The Journal* estimates.

The A. M. A. Council on National Emergency Medical Service, under Dr. James C. Sargent of Milwaukee, chairman, "is giving careful consideration to the relationship of the American Medical Association to military needs," the editorial says.

Representatives of the Association are conferring with other governmental agencies—the public health services, the Veterans Administration, and all of the other federal activities that have a need for doctors—regarding the supply of physicians for civilian defense."

The editorial follows in part:

The situation today in all of the armed forces is, as has here been emphasized again and again, exceedingly critical. The exact number of physicians needed during the coming year may well approach 6,000, of whom the majority would be for the army and air force and the rest for the navy. The supply of professional personnel now apparent is deficient. Unless the rate of procurement of officers is rapidly—and substantially—increased and maintained, the ability to provide medical care under the Selective Service Act is jeopardized.

The Congress failed to include in the Selective Service Act a specific draft of doctors, but President Truman has recalled the Congress and conceivably may again insist on such a draft if the needs of the armed forces are not met by voluntary offers of service from the medical profession.

Most of the young men who have given military service are not inclined to volunteer. There are, however, thousands of young men who were educated at government expense in the A. S.



T. P. and the V-12 programs and who did not render actual military service. They owe an obligation to the government and to the people of the United States.

In their procurement programs for regular officers, the medical departments of the armed forces, by cooperation with the specialty training boards, are able to provide assistant residencies and residencies in both military and civilian installations, which will be accredited by the certifying boards following satisfactory completion of the service. These positions should appeal particularly to the young men who have graduated in recent years, since they offer opportunity for training in a specialty with an adequate income, housing, and maintenance not available through any other source.

The procurement programs of the army and navy have fallen far short of producing the required professional personnel. Unless the Congress provides additional incentives to make such services appeal more definitely to physicians, medical technicians, nurses, and other medical personnel, a real crisis will develop.

Many men who served during World War II are bitter in their recriminations as to faults which they observed in utilization of the medical profession. Some of these faults were so obvious that military leaders have already taken steps to bring about correction.

One of the main objections related to the employment of doctors and dentists in work that was administrative rather than professional. The office of the surgeon general of the army now gives assurance that every doctor and dentist has been removed from every administrative position that does not require a professionally trained man.

Another objection was the lack of continuous graduate training and the opportunity to advance in a medical specialty while rendering service in the army. The army medical department has recognized the inestimable value to that department of civilian professional consultants. These are now used not only in the graduate education program but also in maintaining the highest medical standards in the care of military personnel.

During World War II, one of the most serious complaints related to wastage of physicians by maintaining in close contact installations of the army, the navy, and the air forces with complete staffs of specialists, who, in many instances, did not have enough actual work to occupy their time. Now a detailed study has been, and is continuing to be, made to determine where it is

possible to combine certain medical activities and to eliminate others and thus to abolish waste of professional personnel.

### SELECTION OF THE OUTSTANDING GENERAL PRACTITIONER OF THE YEAR

By action of the House of Delegates of the American Medical Association at the June session in Chicago, the method of selecting the outstanding general practitioner of the year for the award of the American Medical Association has been changed.

The resolution sets into operation the following plan:

1. Each county medical society shall be urged to name the candidate of its choice as the outstanding general practitioner for the year within its jurisdiction, basing its selection on nominations and recommendations from any responsible source, lay or professional.

2. The name of each candidate so chosen by a county medical society, with all pertinent data, including recommendations of lay groups and individuals, shall be submitted by the county medical society to the state medical society of which it is a component part.

3. Each state medical society, through whatever agency each may designate, shall select from among the candidates submitted by its component county medical societies one name to be declared the outstanding general practitioner within the state.

4. The candidate so selected at the state level shall be the sole candidate from that state, and his or her name, with all pertinent supporting data, shall be submitted to the Board of Trustees of the American Medical Association.

5. The Board of Trustees shall select from the names submitted by state societies the names of three persons, these names to be submitted in turn to this House of Delegates, which shall select one name to be declared the outstanding general practitioner of the United States for the year.

6. Any state medical society desiring to do so may establish and confer a suitable award with fitting public ceremony on the physician it has named as the outstanding general practitioner of that state for the year.

The state medical society will consider such nominations as may be presented at a meeting of the Council to be held for that purpose. County medical societies are reminded that such nominations must be received not later than October 10, 1948.



# TUBERCULOSIS ABSTRACTS

## *A Review for Physicians*

ISSUED MONTHLY BY THE NATIONAL TUBERCULOSIS ASSOCIATION

### TUBERCULOSIS IN THE OLDER AGE GROUP

THE more rapid decline of the tuberculosis death rate in younger age groups and the gradual aging of the population have resulted in an increasing proportion of tuberculosis deaths in the ages over 45. Tuberculosis among older people is often unsuspected because the disease has long been considered the particular foe of youth. Although tuberculosis remains the leading cause of death from disease in the ages 15 to 35 the tuberculosis death rate increases steadily with age from a minimum in childhood to a maximum at 75 years of age.

The present practice of making extensive studies of tuberculosis in the younger age group of our population, thus minimizing the importance of the disease in the aged, has proved to be unwise.

The statement has been made that in persons over the age of 50 years the occurrence of communicable pulmonary tuberculosis is more frequent than in any other period. In 3,000 routine postmortem examinations made at the Philadelphia General Hospital from 1936 to 1937, 11.2 per cent of the 1,000 patients 60 years of age and over had died of tuberculosis. This and other evidence leaves little doubt that tuberculosis among older individuals is not rare.

The same irregular periods of activation and quiescence which are characteristic of tuberculosis occur in the older age group, and when continued, calcareous areas, fibrosis, fibrocaseous or fibrocavernous pathology finally develop. The disease among the elderly is usually of a chronic nature, and the patient continues with his occupation. One of the deficiencies in the control of tuberculosis is the failure to discover the disease in elderly individuals who may be spreaders of tuberculosis for many years.

A study of case histories of older patients having pulmonary tuberculosis gives the impression that the disease is usually acquired before 40 years of age though the time of onset is often difficult to determine.

Herewith are four illustrative cases:

Case 1.—A farmer at 28 years of age had a profuse hemorrhage, which was diagnosed as being of gastric origin. Six years later a daughter died of tuberculous meningitis. Fourteen years later, in an accident, he was badly exsanguinated. He recovered and continued his farm work for

22 years apparently in good health. At 70 years of age he complained of a productive cough and had a low grade fever. A sputum examination made at this time showed tubercle bacilli. Two years later, he died of tuberculosis. This man apparently had pulmonary tuberculosis for 44 years.

Case 2.—A female, married for 22 years, had been in poor health, but as no clinical symptoms were present to suggest serious trouble her family physician concluded that she was a malingerer and lost interest. Another doctor later found abnormalities in her chest upon physical examination and tubercle bacilli were present in her sputum. This woman, now 68 years of age, is still living.

Case 3.—A seven-year-old female died of pulmonary tuberculosis 22 years ago. The family consisted of two brothers, a father, and mother. During a school tuberculin-testing program held later the two brothers showed positive reactions. The mother was thought to be the source of infection, but her sputum examinations proved to be negative. The father failed to cooperate, claiming that he was in good health. Later he made a poor recovery from influenza, during which he lost weight and acquired a productive cough. An X-Ray of his chest then showed far-advanced tuberculosis. He died of tuberculosis at the age of 80 years.

Case 4.—Forty-six years ago a young man, then 16 years of age, had three quarts of fluid aspirated from his chest. Fifteen years later rales were found in his right lung apex. During the next few years physical signs were found in both upper lobes. In 1933 an X-Ray of his chest showed marked involvement of both upper lobes and this had progressed to cavity formation by



1946. This man, now 69 years of age, appears in excellent physical condition and in good health.

It seems unreasonable to assume that repeated exogenous reinfections account for the course of the disease in such cases. Many of these patients date the beginning of their trouble back to only a few months, while their X-Ray indicates a long-standing disease finally reaching a stage where a breakdown occurs. Physical examination does not materially aid in making a diagnosis. Spinal deformities, ossification of the costal cartilages, and a decreased vital capacity are encountered in older patients. These alter the signs on inspection and palpation. Upon auscultation the findings are often confused by the presence of other pathologic conditions, namely, bronchitis, bronchiectasis, asthma, heart disease, and, particularly, emphysema. The X-Ray film is the decisive factor in making a diagnosis in older as well as in younger persons. Neither a negative sputum examination nor a negative tuberculin test can rule out the disease.

These elderly patients present problems of segregation, individual education for their own and the public's safety, and their own personal treatment.

In the past 75 years persons over 50 years of age in the United States have increased from 3.8 to 5.7 per cent. The census of 1940 showed approximately 9,000,000 adults over 65 years of age. Should this increase in our old age population continue aged persons with tuberculosis must be given serious consideration to avoid the transmission of the disease from the aged to the young.

Tuberculosis in the Older Age Group, Charles D. Boyd, M. D., The Wisconsin Medical Journal, December, 1947.

## RANDOM THOUGHTS OF THE SECRETARY

July 24th. Tonight Wallace accepts the nomination in a Philadelphia baseball park, surrounded, we suppose, by a great collection of foul balls.

July 27th. Comes Siegel's materialistic publicity on the Johnson County Peach Festival, and we do feast, thanks to him.

July 29th. Attending sessions of the cancer commission and of the cancer society renewing enthusiasm for the good work of these groups in the program of cancer control in Arkansas.

July 30. With Jones and Goldstein, Goldstein paying the small costs of the trip, to Berryville for an interesting diagnostic cancer clinic visiting briefly with Poyner home from the wars and with Woodcock who, like many another, is wondering what a hospital licensing law can do.

August 1st. In a huddle over matters connected with ideals in medicine and their retention in the surge of political battles, pleased at the attendance but giving thought to the great need for a more exacting political consciousness on the part of physicians.

August 3rd. This is the day which makes happy winners and some poor losers.

August 14th. The Kosenkina-Samarin case should forcibly remind us that fear is the material out of which governments build even in these days and caution us that a like fate might well be ours if we do not make our local, state and federal governments agencies of our free wills.

August 15th. Meeting with the entire program committee to study plans for the 1949 session and to make certain innovations in time-honored procedures which may prove of benefit, soupy flying weather attending us all the trip but we are probably no more inconvenienced than is Foster near Rover down below us engaged in weekly stock-raising activities.

## A NOTICE TO PHYSICIANS AND SURGEONS IN ARKANSAS CONCERNING SURGICAL PATHOLOGICAL SPECIMENS REMOVED FROM INDIGENT PATIENTS

You have received a recent letter from the State Board of Health and one from the University of Arkansas School of Medicine telling you that surgical pathology specimens will go directly to the Medical School rather than being first handled by the State Board of Health. The action which brought about this new re-routing was decided upon by the State officials and the Medical School, in order to facilitate a more rapid handling of this material.

The Department of Pathology is willing to accept the responsibility of continuing this service to the physicians of the state of Arkansas. It is understood that the Department of Pathology is not in competition with private pathologists but is doing this service because of the School's interest in the indigent poor of the state. The Department of Pathology depends upon confirmation of the submitting physician as to the indigency of the patient.

Suitable surgical pathology forms and containers may be obtained upon request from the Department of Pathology, University of Arkansas School of Medicine.

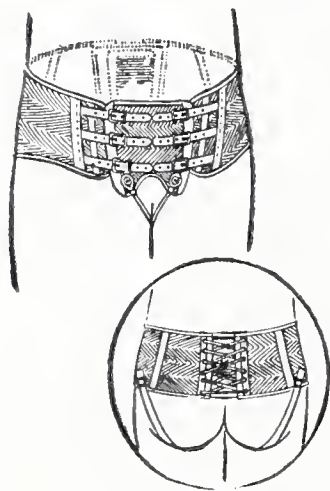
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University of Arkansas  
School of Medicine.





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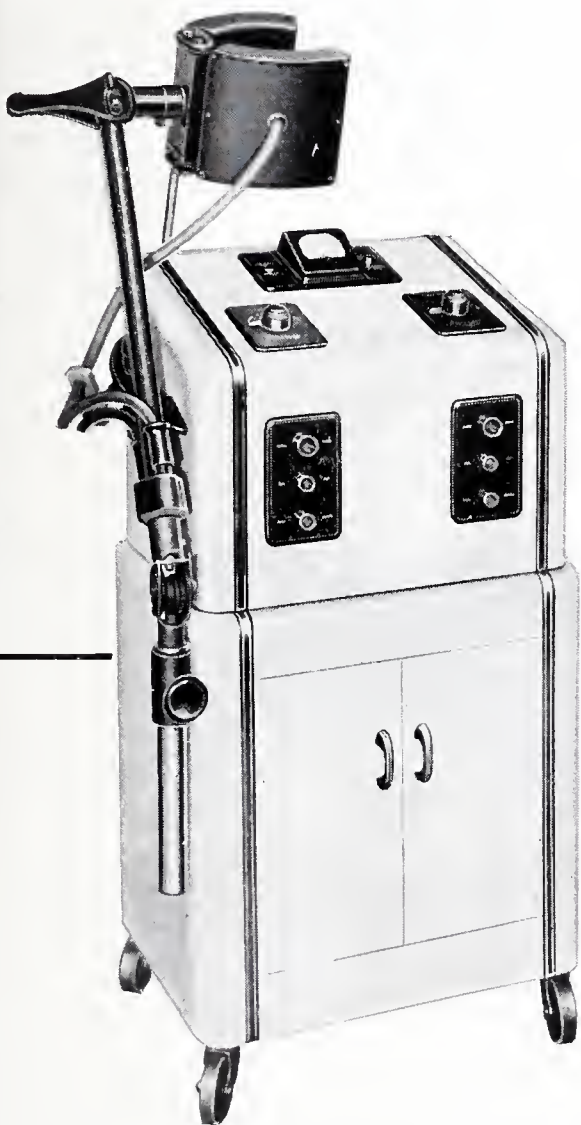
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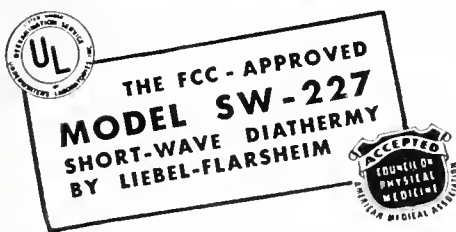
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## PERSONALS AND NEW ITEMS

F. Walter Carruthers, Little Rock, attended the recent international poliomyelitis conference in New York.

---

John William Smith has moved to new offices at 1415 West Sixth Street, Little Rock.

---

Robert Caldwell, Little Rock, has been elected an associate fellow of the American Medical Association.

---

A. C. Shipp and Harvey D. Shipp, Little Rock, have been elected director and member of the editorial advisory board, respectively, of the National Tuberculosis Association.

---

The forty-second annual meeting of the Southern Medical Association will be held at Miami, Florida, on October 25-28 with the Dade County Medical Association as sponsor.

---

At a meeting of the Executive Committee on July 24, Dinner Key was selected as general headquarters for the following: registration; all section meetings, scientific, technical and hobby exhibits; and motion pictures. Dinner Key (the former Pan American Air Depot) is ten minutes' ride from the general hotel headquarters and makes it possible to hold all of the above activities in one location. There is parking space for over a thousand automobiles around the main building.

---

In view of the fact that the State Hygienic Laboratory of the State Board of Health is not equipped to examine pathological specimens, and that such specimens in the past have been forwarded to and examined by the Department of Pathology of the University of Arkansas School of Medicine, and also, in view of the fact that the School of Medicine has indicated that they will continue to perform this service, therefore, be it resolved that after August 15, 1948, this service will be discontinued by the State Board of Health.

---

G. M. Hogaboom, Hot Springs National Park, has moved to Heavener, Oklahoma.

---

Recent appointments to the faculty of the University of Arkansas School of Medicine are:

Carl E. Duffy, Professor and Head of the Department of Bacteriology and Parasitology; James O. Ferguson, Instructor in the Department of Anatomy; Henry J. Clausen, Associate Professor of the Department of Anatomy, and James S. Dinning, Assistant Professor in the Department of Biochemistry.

---

Robert Watson, Little Rock, attended the Harvey Cushing Society meeting in San Francisco during August.

---

Dr. and Mrs. J. M. Kolb, Clarksville, spent a recent vacation in Canada and Northeastern states.

---

The Arkansas Radiological Society met in Little Rock August 22nd as guests of Dr. and Mrs. D. A. Rhinehart.

---

Tom J. Meek is now associated with R. B. Robins in practice at Camden.

---

J. D. Kinley has been elected surgeon of the Beebe post, American Legion.

---

The following have been elected post surgeons of the respective American Legion posts: W. E. Phipps, North Little Rock; Perry Dalton, Camden; W. L. Shippey, Fort Smith, and G. D. Murphy, Jr., El Dorado.

---

Dr. and Mrs. R. W. Miller, Fayetteville, spent a recent vacation in Minnesota.

---

Dr. and Mrs. A. S. J. Clarke, Fort Smith, spent a recent vacation at Pensacola, Florida.

---

The first issue of "General Practice News," the publication of the American Academy of General Practice, carries a discussion of the recommendations from the medical profession presented to the recent Democratic National Convention by R. B. Robins, Camden.

---

The following have been elected post surgeons of the respective American Legion posts: J. E. Beasley, Blytheville, and F. S. Dozier, Marianna.

---

**MARRIED**—At Little Rock, August 16th, Marlin B. Hoge, Fort Smith, and Miss Martha Nell Greenwood, Little Rock.



“...such as Metamucil...”\*

For the treatment of the spastic colon the author suggests diet, elimination of the nervous element and “bulk producers.” As examples of these he lists “agar-agar, in finely powdered form, in flakes, or in cereal-like form; derivatives of psyllium seed, such as Metamucil . . . .”\*

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\*Glaske, W. H.: *Spastic Colon*, *M. Clin. North America* 26:805 (May) 1942.

†*Council on Pharmacy and Chemistry: New and Nonofficial Remedies*, 1947, Philadelphia, J. P. Lippincott Company, 1947, p. 320.



## PROCEEDINGS OF SOCIETIES

The Craighead-Poinsett County Medical Society met in dinner session at Jonesboro August 5th for the following program: "Differential Diagnosis of Abdominal Pain," W. M. Lamp, Paragould; "Acute Pancreatic Necrosis," A. D. Garner, and symposium on workmen's compensation insurance led by T. A. Bowen, Little Rock.

J. H. McCurry, Secretary.

### THE 1949 ANNUAL SESSION

The Garland County Medical Society has been unable to arrange for the 1949 session of the Society to be held in Hot Springs National Park except during the first week in June. Inasmuch as this date conflicted with the annual session of the American Medical Association and because a meeting date so late in the season would be hindered by hot weather, it was decided to forego meeting at Hot Springs National Park in 1949 and to accept the alternate invitation of the Pulaski County Medical Society to meet in Little Rock. Dates for the 1949 annual session to be held at Robinson Auditorium will be April 14th, 15th and 16th. It was not possible to arrange a meeting for the first three days of the

week nor to begin the meeting on Wednesday as the Society has asked since meeting space at the Auditorium is committed on a long-time and permanent basis for Tuesday nights, and it is not possible to open the Auditorium for a Wednesday session after the Tuesday night affair.

## WOMAN'S AUXILIARY NEWS

The Southeast Arkansas Medical Auxiliary met in Eudora, Monday July 19, 1948, at 7:30 o'clock. After dinner with the doctors a business session was held. Mrs. W. A. Regnier, the president presided. Mrs. J. P. Price moved and Mrs. C. W. Dixon seconded the motion that the Auxiliary send \$10 to Mrs. Isle Oates for the student loan fund. Mrs. Van C. Binns was elected Publicity Secretary. Fourteen members were present. Mrs. Si Fulmer of Little Rock and Mrs. W. A. Reeder from New Orleans, La., were guests. There being no other business the meeting adjourned. The remainder of the evening was spent playing Bingo.

Mrs. Van C. Binns.

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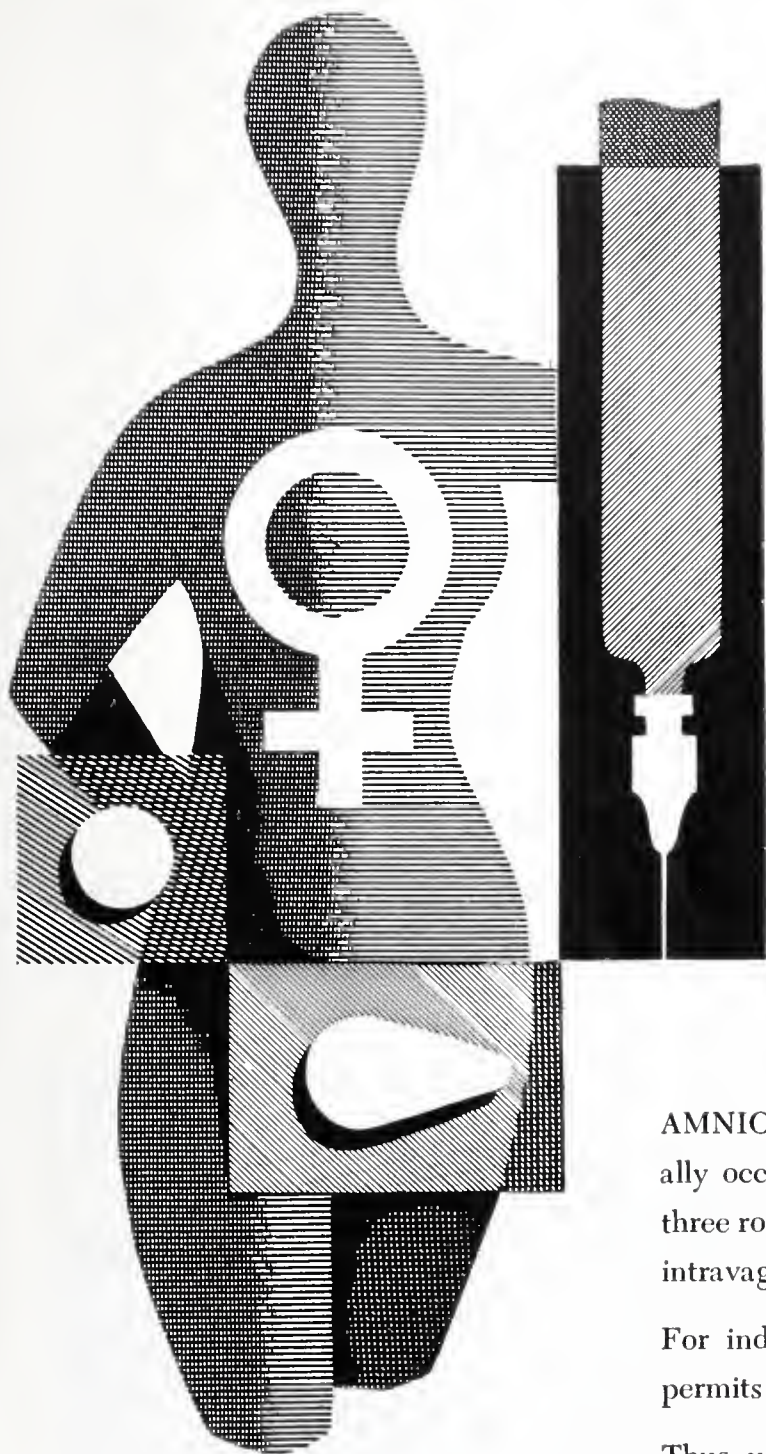
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## BOOK REVIEWS

**Treatment of Heart Disease:** By William A. Brams, M. S., M. D., Ph. D., Associate Professor of Medicine, Northwestern University Medical School, and Attending Physician, Michael Reese Hospital, Chicago. New, 1st edition. 195 pages, with 11 figures. Philadelphia & London: W. B. Saunders Company, 1948. Price \$3.50.

This is a small and compact guide for cardiac therapy for the general practitioner based upon the author's personal experience. The action of the useful drugs is well presented and no attempt is made to discuss all the contingencies which may arise in an active practice. The importance of treatment of congestive heart failure an essential prerequisite for the successful treatment of heart disease.

**Minor Surgery.** By Frederick Christopher, B. S., M. D., F. A. C. S., Associate Professor of Surgery, Northwestern University School of Medicine Chief Surgeon, Evanston Hospital; (Illinois). Sixth edition. Pp. 1,058. Price \$12.00. Philadelphia: W. B. Saunders Company, 1948.

The author has developed a method of separating major and minor procedures which emphasizes the importance of the minor procedures yet does not purport to discuss any major operative surgery. This volume is of great interest to every general practitioner and the surgical specialist can well make use of its compilation of recent surgical advances.

**General Endocrinology:** By C. Donnell Turner, Ph. D., Associate Professor of Zoology at Northwestern University. NEW, 1st edition. 604 pages with 164 figures. Philadelphia and London: W. B. Saunders Company, 1948. Price \$6.75.

This is a brand new book of an entirely different attack on the problems of endocrinology. It is the first book of this type to be written by a biologist. The book approaches the subject on a biological level, discussing the glandular system from its anatomical, embryological, physiological, evolutionary, and clinical aspects. To either the specialist or the practitioner who desires to broaden his conception of the endocrine system and its functions, to include better understanding of the why and how of these functions, this book is highly recommended. In reviewing this book, one gets the impression that it is not a clinical work, but it offers a real opportunity for the specialist or practitioner to fill in a well rounded background of endocrinology from a biological standpoint. The endocrine systems covered by this treatise are the thyroid, parathyroid, gastro-intestinal group, the pancreas, adrenal, testes, ovary and pituitary glands.



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# The JOURNAL OF THE ARKANSAS MEDICAL SOCIETY

Vol. XLV

FORT SMITH, ARKANSAS, OCTOBER, 1948

No. 5

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# The JOURNAL

## OF THE ARKANSAS MEDICAL SOCIETY

PUBLISHED MONTHLY UNDER DIRECTION OF THE COUNCIL

Vol. XLV

FORT SMITH, ARKANSAS, OCTOBER, 1948

No. 5

### THE LYMPHNODE AS AN AID TO THE PRACTITIONER IN DIAGNOSIS \*

R. L. FERGUSON, M. D.  
Vermillion, South Dakota

I am sure that every doctor has at some time or another wished for a small faucet in the venous system whereby he might draw off blood at intervals without having to subject the patient to the mental and physical torture of constantly sticking him with the needle for a glucose tolerance test or some other test upon which the diagnosis depends. On the other hand, every patient has a mechanism which might be compared to a faucet. This mechanism is the lymphnode, because of its ready accessibility.

It has been estimated that there are between 500 & 600 lymphnodes in the body. The normal size is between 1 mm. and 1 cm. in diameter (1). Lymphnodes consist not only of lymphoid tissue, but also reticulo-endothelial cells, and by virtue of these cells the node plays the part of a filter and tends to retain any irritant which may reach it in the lymph stream. The pathology of the lymphnodes is often difficult because their cells possess remarkable powers of proliferation and hyperplasia; hence, it may be almost impossible to differentiate inflammation from malignancy.

It is, therefore, of the greatest importance that the entire node be, whenever possible, removed. If the patient has a generalized lymphadenopathy when a node is to be removed, the inguinal nodes (although easily accessible) should never be taken, because they are almost invariably complicated by infection. Consequently the pathology may be most confusing and some other location should be chosen.

The doctor should send a complete history and blood picture with the biopsied lymphnode. Too often the specimen is sent without a word of history, and no mention is made of the differential or the erythrocyte or leucocyte counts. This may be carelessness, but it grossly is unfair to

the patient who has entrusted himself to the practitioner.

Ackerman and Regato have presented a masterly piece of work in their book "CANCER" (2) in illustrating the lymphatics of the body. A brief discussion will be given here of some more important areas and their lymph drainage.

**The Lower Lip:** Of course, one of the most common lesions of the lower lip in men over 45 years is cancer. The submental and submaxillary nodes on the involved side drain this portion of the lip. In a very rare case the corresponding submental lymphnodes on the other side may be involved.

**The Upper Lip:** Lymphatics are more numerous in the upper lip than in the lower lip. These drain into the upper cervical below the parotid gland, in preauricular nodes, submaxillary and submental nodes. However; a few may cross the mid-line and drain on the opposite side (2). Cancer of the upper lip usually metastasizes very widely.

**Tongue:** The tongue is extremely rich in lymphatics. Lymph spread takes place into the submaxillary lymphnodes, superior and inferior deep cervical nodes, and in an occasional case one may find the supra-clavicular node involved. Lesions on the posterior third of the tongue may spread to the upper cervicals on both sides (2). Carcinoma of the tongue usually spreads very rapidly due to the rich lymphatic drainage and the constant muscular movements of the tongue.

**Upper Gingiva:** Lymphatic spread is to the submaxillary and rarely to the retro-pharyngeal nodes (2).

**Lower Gingiva:** The lymph drainage in this area is to the nodes in the submental, submaxillary and inferior cervical region. Taylor and Nathanson studied 275 cases of carcinoma of the lower gingiva and found that 65% developed metastasis (3).

**Stomach:** The lymphatic networks of the stomach may be divided into four groups: the serosal, muscular, sub-mucosal and mucous mem-

\* Read before the Seventy-second Annual Session, Arkansas Medical Society, Little Rock, April 17, 1948.



brane. They all anastomose with one another and drain into the following lymphatic trunks (2):

1. The left gastric artery collecting trunk.
2. The splenic artery collecting trunk.
3. The hepatic artery collecting trunk.

**Breast:** All clinical men are familiar with the involvement of the lymphnodes in the axillary region. These nodes receive the lymph from the upper and lower halves of the mammary gland passing through the fascia and ending in the external mammary chain which is located between the second and third intercostal spaces. Another pathway of lymphatic is that which passes through the pectoralis major accompanied by branches of the lateral thoracic artery and proceeds to the supraclavicular nodes. The pectoralis minor also sends lymphatics into this pathway; lymphnodes may be found between these two muscles.

The internal mammary pathway passes between the pectoralis major and the intercostal muscle close to the sternum and drains into the internal mammary chain. Surrounding the areola is a vast network of lymphatics which anastomose with the lymphatics of skin covering neck, chest and abdomen. Thus, the lymphatics of one breast communicate with the lymphatics of the other breast. Therefore, it is possible to have tumor metastasis from one breast to the breast and axillary region of the opposite side (2).

**Uterus:** The uterus, like the stomach, has several intercommunicating networks of lymphatics. These run in the mucosae the muscularis and the serous and sub-serous areas. The collecting trunks originate in the lateral borders of the uterus and form three main trunks. One trunk proceeds to the pre-aortic and later-aortic lymphnodes on the left, and to the pre-caval and latero-caval lymphnodes on the right. Another trunk proceeds to the external iliac group and the third trunk proceeds to the inguinal region (2).

**Cervix:** The cervix lymphatics form a rich plexus with three trunks. One trunk passes in front of the ureter and ends in the middle and internal group of nodes in the external iliac chain. A second trunk follows the course of the uterine vein and passes behind the ureter and ends in one of the hypogastric lymphnodes. A third trunk travels on each side of the rectum and ends in the latero-sacral lymphnode (2). The ureters often become involved, resulting in complete blockage of the ureter and the patient dies in uremia.

**Penis:** The prepuce lymphatics come from the

network of both the external and internal surfaces and converge near the dorsal aspect. They join the lymphatics coming from the skin of the shaft and form trunks that run toward the os pubis, ending in the upper inner group of superficial inguinal lymphatics. The glands lymphatics form a network which runs toward the frenulum. They anastomose with the lymphatics of the urethra and several collecting trunks and completely surround the corona. Two or three trunks are formed which run along the dorsal surface of the penis and are accompanied by the deep dorsal vein. At the suspensor ligament, these trunks form a plexus joining others. Two main trunks are thus formed, one trunk follows the femoral canal and ends in the deep inguinal nodes and retro-femoral nodes, and the other trunk follows the inguinal canal running under the spermatic cord and ending in the external retro-femoral lymphnodes. The corpora cavernosa lymphatics end in the superficial upper and inner group of inguinal lymphnodes, deep inguinal lymphnodes and retro-femoral lymphnodes. Urethra lymphatics usually end deep in the inguinal lymphnodes (2). One should always palpate below as well as above Poupart's ligament when examining the external genitalia.

The first part of this paper has been devoted to the location of the lymphnodes. I will discuss some of the diagnoses that may be made from biopsied lymphnodes.

**Typhoid:** This lymphnode is a mesenteric lymphnode taken from a young man who died. The node was quite large, edematous, congested and showed areas of necrosis. The diagnostic point is the large mononuclear cells with phagocytized lymphocytes and red cells.

**Tularemia:** (Caused by *Bacterium Tularensis*). This slide came from a twenty-one-year-old white male who killed and dressed a wild rabbit. Three days later he noted a sore on his finger. He developed the glandular type of tularemia and died twenty-one days later. This lymphnode contains typical foci of necrosis surrounded by epithelioid cells and occasional giant cells.

**Leprosy:** The cause of leprosy is the mycobacterium leprae. In these sections one notes the large macrophages filled with lipid material (Lepra cells). An acid-fast stain will give considerable aid in confirming the diagnosis. The Lepra cells are large masses of epithelioid cells not arranged in tubercles; animal inoculation may be necessary to differentiate from tuberculosis.

**Venereal Lymphopathy:** (Caused by filtrable



virus). The initial lesion appears from a week to several months after exposure. Several weeks later, lymphnode enlargement appears, surrounded by dense fibrous tissue. Microscopic cavities filled with debris may be noted. Surrounding the abscess are many mononuclear cells, epitheloid cells and giant cells (4). Multiple abscesses develop in these nodes and discharge through fistulous openings. Subsequently, scar tissue formation ensues and may lead to rectal strictures, and elephantiasis of the external genitalia.

**Boeck's Sarcoid:** (Boeck's sarcoid is a systemic disease). Groups of lymphnodes may be involved, giving a clinical picture which simulates Hodgkin's disease are hyperplastic tuberculosis. The biopsied lymphnode as seen here reveals large, pale epitheloid cells which are collected in isolated nests, and well-defined nodules. Pale giant cells scattered throughout complete the picture. Interesting enough, these same lesions have been described in the breast, skin, mucous membrane, bone, lachrymal gland, tonsils, eyes, nervous system, pituitary gland, thyroid, lung, serous membrane, liver, intestine, spleen, kidney, endometrium, prostate, testis, epididymis, voluntary muscle, and tendon sheath.

**Coccidioidomycosis; Valley Fever:** (Caused by the coccidioides Immitis, a fungus). The importance of this disease cannot be stressed too much since the trachealbronchial lymphnodes often undergo calcification and simulate tuberculous lymphnodes (5). The lymphnodes are small, sometimes they coalesce, undergo necrosis, and form cavities. The lymphnode contains many polymorphonuclear lymphocytes, monocytes, with at times necrosis of the center. Pale giant cells are noted and often within this giant cell is the organism—large double contour bodies containing endospores.

**Hodgkins:** (cause unknown). The cervical nodes are usually affected and only late do they become matted together. The lymphoid follicle is greatly enlarged and contains a variable number of typical large multinucleated cells. The cytoplasm is distinct. The nuclei vary from one to three in number, they are vesicular, frequently indented or folded on one side and contain a distinct nucleolus. As the disease progresses the lymphoid tissue is replaced by fibrous connective tissue. In all stages plasma cells and eosinophilic leucocytes may be demonstrated.

**Giant Follicular Lymphoma:** The nodes are moderately-enlarged, firm and discrete. The capsule is not thickened and there is no matting of the nodes. The follicles are scattered through-

out and vary in size. Each follicle is surrounded by compressed lymphoid tissue infiltrated with normal small lymphocytes. There is no active phagocytosis. In some areas the follicles appear to have made an attempt to coalesce. At first, this lesion was thought to be benign, but further study over a period of years has shown that these patients usually develop lympho-sarcoma or leukemia (6).

**Lymphosarcoma:** In this lymphnode the normal pattern has been replaced by poorly differentiated lymphoid cells with a vesicular nuclei. A fine argyrophilic reticulum weaves loosely and fairly uniformly throughout, with no particular relationship to the individual cells.

The histologic picture of leukemic and aleukemic lymphnodes sometimes closely resembles the description of the lymphosarcoma. The clinician can render a vast amount of aid to the pathologist by sending in the history and the peripheral blood picture. If the blood picture is that of a leukemia, very little difficulty is offered in the diagnosis. Again, if the blood picture is normal, this will rule out leukemia in the majority of cases. As is often the case, the blood picture and history do not accompany the lymphnode, and the pathologist must differentiate if possible between lymphosarcoma, lymphatic leukemia, and aleukemic aleukemia; and in very rare cases, an undifferentiated carcinoma. By searching for blood sinuses in the nodes and studying the cellular content, one may be able to determine the cellular contents of the peripheral blood stream. However, it may be impossible to differentiate between the above lymphomas and only a diagnosis of malignant lymphoma can be made.

From the above discussion it can be seen that in order to render an accurate diagnosis and the best treatment to the patient, the clinician and pathologist must work together. Your pathologist of today is well-trained, and is your consultant, so use him not only in the field of tissue pathology, but in the field of clinical pathology.

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## SOME POINTS OF INTEREST CONCERNING VAGINAL MONILIASIS

E. T. ELLISON, M. D.

Department of Obstetrics and Gynecology,  
University of Arkansas School of Medicine

This troublesome condition is an ever present disturbance in our clinical work in both obstetrics and gynecology and many treatments have been advised to clear up this vaginal irritation. The etiological agent, *monilia albicans*, is sensitive to many antiseptics in laboratory experiments, but in clinical practice considerable difficulty in therapy is encountered. These difficulties arise both in diagnosis and treatment. Finding the offending organism is difficult and local treatments although miraculous immediately, require considerable effort and much time is lost in keeping this vaginitis under control.

In regard to specific diagnosis, we have used a most simple laboratory procedure for detection of this organism. All patients presenting symptoms or signs of vaginitis are, of course, examined and a cervical smear taken for gonorrhea. In addition, suspension of vaginal secretions in saline is made, and a wet preparation examined immediately under the microscope. *Trichomonas* and *monilia* may be seen by this simple technique. The former are easily identified by their motility while *monilia* is likewise easily identified as a weed-like, branching organism consisting of spores and mycelia. By chance we discovered that leaving the test tube of secretions overnight at room temperature promotes considerable more growth of *monilia* and therefore examination after 24 hours gives a more positive diagnosis of the cause of the disorder.

In regard to treatment: medications have been advocated for years with some degrees of success. Unfortunately, these treatments are often time consuming, and in the case of gentian violet instillations, not only does expensive soiling of clothing occur, but frequent office visits are necessary. Dr. Howard Kelly, in an early textbook of gynecology, suggested bichloride of mercury douches for this disorder. Mercurial compounds and many other antiseptics have been investigated in laboratory experiments for effectiveness.<sup>1</sup> Bichloride of mercury, although not the most potent fungicide, proved effective on many strains of the organisms tested. Not unmindful of the disadvantages of this drug, we undertook to treat *monilia* infestations over a two-year period, occurring during pregnancy,

associated with diabetes, and when found on vaginal examination for vaginitis. A 1/4000 solution was advised to be used as a douche, with the patient in the prone position in a tub or with the hips over a bedpan. Daily irrigations were advised at first but frequency was decreased as symptoms improved. Patients during pregnancy were cautioned to insert the douche nozzle only 1 1/2 inches during the latter months of pregnancy.

The results of this type treatment, although not 100%, were effective in controlling a large per cent of the cases. Its advantages over gentian violet instillations result from less frequent office treatment and less staining of clothing and office fixtures. Too, three cases of extreme sensitivity to gentian violet instillations when used over a large period of time were noted, and control by bichloride douches proved effective. The two treatments may well be used to supplement each other and thus serve as office and home therapy. Any evidence of storage or absorption of the mercurial salts as evidenced by discoloration of the tissue or toxicity on the kidneys have not been observed.

It is, of course, necessary to warn patients repeatedly to keep the tablets away from children, out of medicine cabinets and well hidden in an inaccessible place where no member of the family or animals may take them internally. Caution in breaking up the tablet in the douche container is important also, as a burn might be caused by a piece of tablet lodging in the vagina. We do not feel, however, that the danger associated with this drug outweighs its effectiveness in therapy on *monilia*.

### Conclusion

Simple procedures for diagnosis and control of vaginal *monilia* are presented. Incubation of vaginal secretions in saline at room temperature aids in diagnosis of *monilia*. Treatment with 1/4000 bichloride douches is an effective, simple and inexpensive home treatment for this disorder. No toxicity in over 200 cases have been encountered. We believe that the value of the treatment outweighs the disadvantages of therapy with the product.

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## TUBERCULOUS PERIRECTAL FISTULA WITH RECOVERY FOLLOWING DEBRIDEMENT AND SKIN GRAFTING WITH SIMULTANEOUS ADMINISTRATION OF STREPTOMYCIN

KARLTON H. KEMP, M. D.  
Texarkana

We submit a case of tuberculous sinus involvement of the skin. The history is that of diarrhea of undetermined type three years prior to this hospitalization. This was followed in a few months by a discharge from the anus and a slowly progressing sinus type of inflammation, spreading from the rectum about the perineum, with the inflammation being restricted to the area to the right of the midline.

Simple opening of the sinus tract into an internal opening which was located just internal to the external sphincter of the anus was followed by recovery of the internal portion and by a rapid extension of the sinus tract into the right buttock. Pathologic report at that time was tuberculosis. It was particularly noted that spreading of the inflammation occurred during each menstruation. The lesion continued to spread for six months after the original fistulectomy.

Hospitalization was obtained and streptomycin was given, one-fourth gram, every three hours. In spite of this type of treatment, plus penicillin intramuscularly, 50,000 units every three hours, the lesion continued to spread.

Extensive debridement of the necrotic tissue was then carried out along with simultaneous streptomycin and penicillin therapy, and the denuded area was covered by skin grafts five days later. Final cure was then obtained within two weeks after the debridement. Observation three months following hospital discharge showed no evidence of recurrence.

In summary, it is noted that in a single case here presented tuberculous sinus involvement of the skin about the rectum was rapidly and efficiently cured by debridement and skin grafting along with a simultaneous therapy of streptomycin. The same inflammatory process had previously spread and continued to spread with the simple surgical care consisting of debridement and dressings. It was of interest to note that this particular case of tuberculous sinus infection showed a tendency to spread during each menstruation.

Karlton H. Kemp, M. D.,  
408 Hazel Street,  
Texarkana, Arkansas.

## EDUCATION IN ALLERGY

ALAN G. CAZORT, M. D.  
Little Rock

The allegation that clinical allergy is the step-child of undergraduate medical education is justified. Last year, Dr. David P. Barr, addressing the annual meeting of the Academy of Allergy, said: "It is more than deplorable that many young internists have been permitted to finish their training without contact with allergy and allergic thought. Some of them have been so crassly ignorant as to regard the whole speciality as a somewhat unnecessary and undesirable field."

Everywhere, allergy impinges on the field of general medicine. "In consideration of asthma, one must take into account emphysema, bronchitis, the state of the circulation and the state of the kidneys as well as the constitution and the psychological state of the patient. In dealing with hay fever, the allergist must be well acquainted with the problems of nasal infection, of sinusitis and of other diseases of the upper respiratory tract. In considering the erythema group, he must be aware of the great number of diseases of the skin with which the members of this group may be confused. In the more recent extensions of drug allergy, he must be aware of the many problems of the chemistry, pharmacology and clinical use of drugs. Tobacco allergy and the recently emphasized blood vessel allergy involve the field of peripheral vascular disease as well as acute rheumatic fever, periarthritis nodosa, and that strange group of conditions now sometimes collected under the name of angitis."\*

However, the picture at the University of Arkansas School of Medicine is far from discouraging. The Department of Allergy operates as a subsidiary of that of Internal Medicine. Eleven hours of didactic instruction are required in the junior year. In the senior year, two hours a week of clinical work is given with all students. Attendance is irregular, depending on the needs of students' individual patients for allergic study. Adequate funds for the department's operation are available. Faculty cooperation is completely satisfactory.

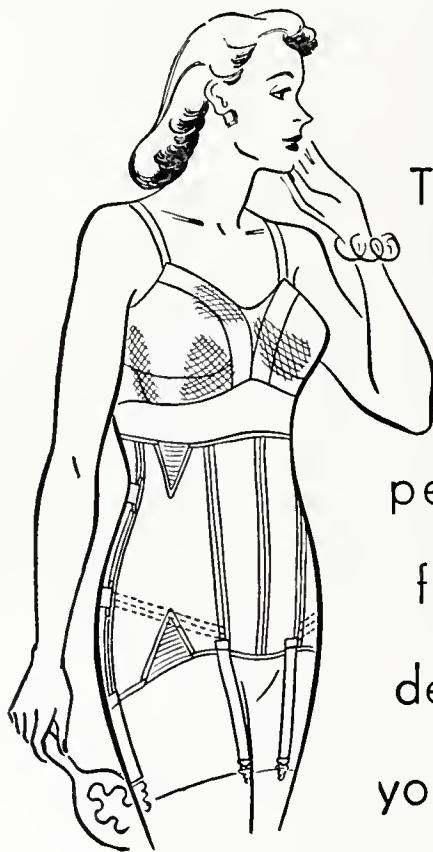
Most of the contributions to allergy in the past have been made by rugged individuals. The allergist of the future will be the internist who possesses those special skills necessary for the recognition of sensitization and the detection of its cause. The training of such allergists is a challenge to all schools.

\* President's Address American Academy of Allergy Meeting 1945.



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## EDITORIAL

### BLOOD PLASMA PROGRAM

The University of Arkansas School of Medicine has developed the following program for the collection and distribution of blood plasma in the state with the approval of the Committee on Medical Education and Hospitals and of the Council of the Society. The assistance of district and county medical societies is necessary in arranging blood donor clinics over the state. It is suggested that county societies assume responsibility for the fair distribution and ethical use of plasma distributed through the blood bank and that abuses in its use should be considered by the respective county medical societies.

The American Red Cross has furnished war surplus plasma to the State Health Department. The blood bank has distributed this plasma for the Health Department to physicians of the State without charge. The blood was donated by voluntary donors. The plasma is distributed without charge on the understanding that it will not be sold or used in competition with commercial plasma supplies. This does not prevent the hospital or physician from collecting a service charge. The hospital or physician

is obligated not to make a charge for the plasma. The same principals should also apply to blood bank plasma. This puts the control of blood plasma in the hands of the medical society where it belongs.

The blood bank mobile unit can hold forty blood donor clinics of two-day duration between September 15, 1948, and June 23, 1949. It is unsatisfactory to hold donor clinics in very hot weather or in areas where the roads are likely to be icy. It is planned to hold nineteen donor clinics in the area included in Councillor districts 1, 3, 4, 5, 6 (eastern and southern areas), during the winter and early spring. Twenty-one donor clinics may be held in the area included in Councillor districts 2, 7, 8, 9, and 10 (northern and western areas) during the fall and late spring. Clinics are held on Wednesday and Thursday. They might be held in one central town with donors coming from outlying communities or shorter clinics might be held in two or three towns if within easy driving distance of the town in which blood bank personnel would stay. It is most satisfactory to have not less than 100 donors nor more than 200 donors.

The district or county medical society will be asked to take the initiative in requesting the blood donor clinic and the leadership in planning it. The county medical society might ask the cooperation of the county Red Cross chapters, Home Demonstration clubs, Labor unions, or industrial plants, churches, and fraternal groups as the local situation indicates. The Red Cross chapters can be most helpful in securing donors, volunteer assistants and clerical help. We would like to have the donor clinics and the distribution of the plasma under the control of the local county society. Preliminary arrangements for the blood donor clinics should be made with the Blood Bank, University of Arkansas School of Medicine, 1209 McAlmont street, Little Rock, Arkansas. The county society should suggest several desirable dates.

The blood will be processed and plasma returned to the secretary of the county medical society for distribution at the ratio of one unit of plasma to two units of blood. The extra unit of plasma will be held in reserve in the blood bank.

The blood bank would like to be of service to hospitals and physicians of the State in consultation on blood bank problems and in the supply of whole blood if there is need for these services. Since any major disaster would probably require the use of considerable quantities of blood and plasma the blood bank would



like to have its facilities integrated into the State-wide plans for disaster relief in cooperation with the American Red Cross, the National Guard and other agencies.

### ADMISSION POLICY OF THE UNIVERSITY OF ARKANSAS SCHOOL OF MEDICINE

With literally hundreds of applications to fill the class at the University of Arkansas Medical School, it has become most important that a fixed procedure be formed by which applicants may qualify. This has received the earnest study of the administrative heads and the faculty and, as finally devised, has been approved by the Board of Trustees of the University of Arkansas and of the Council and House of Delegates of Arkansas Medical Society. In order that members may be familiar with the qualifications they are listed below. Inquiries on specific admissions will, of course, be welcomed by the school authorities. The present plan has been in effect for two school terms and, while not perfect, appears as nearly satisfactory as any plan which could possibly be devised.

1. For the purpose of considering applicants for admission to the School of Medicine, in-so-far as residency is concerned, the following policy adopted by the Board of Trustees of the University of Arkansas will guide the Admissions Committee of the School of Medicine in the consideration of all applicants: "A resident of the State of Arkansas, in-so-far as the School of Medicine is concerned, shall be defined as one who has lived in the State of Arkansas at least two years prior to his (or her) initial registration for pre-medical work in any institution."
2. Applicants from the University of Arkansas previously registered in schools other than the School of Medicine, will, upon the recommendation of the pre-medical advisory committee, be transferred to the School of Medicine provided they meet all the requirements and have been favorably considered by the Admissions Committee of the School of Medicine.
3. Preference will be shown applicants who have obtained their secondary education in the schools of the State of Arkansas.
4. All other qualifications having been met, preference to applicants who have been members of the Armed Services will be shown.
5. A grade point average of 2.0 will be required of all applicants and scholastic attainments in pre-medical education will be recognized as an important factor in the selection of

applicants by the Admissions Committee of the School of Medicine.

6. The professional aptitude test sponsored by the Association of the American Medical Colleges will be required of all applicants.
7. No medical student will be favorably considered for advanced standing who does not meet the requirements and is acceptable for registration at the school from which he is transferring.

### EDITORIAL COMMENT SPECIAL SESSION OF THE HOUSE OF DELEGATES

At the request of the Joint Advisory Committee on the Arkansas Health Plan, a special session of the House of Delegates of the Society has been called for 10:30 A. M., Sunday, October 10th, in the Continental Room, Hotel Marion, Little Rock.

The session will be convened to hear reports on termination of the John Marshall Insurance Company participation in the Arkansas Health Plan and to hear and make such decisions as may be determined on the future progress of the joint prepayment care plan sponsored by the Society in cooperation with the Arkansas Hospital Association. Paul R. Hawley, of the nation Blue Cross organization, will address the meeting.

The importance of this meeting is evident. Each county medical society should be represented by its full delegate strength. Members of the Society are, of course, welcome to the session.

### RANDOM THOUGHTS OF THE SECRETARY

August 22nd. Assembling with the radiologists at the Rhinehart rural domicile and busily engaged during the day in conversation, the discussion of radiology, visiting the lake and playing with Penrod but most grateful to Lucy Rhinehart who provided food far more delectable than is written in the pages of Gourmet.

August 26th. To final services for C. P. Sisco hearing from those standing on the lawn homely but honest praise of a physician who gave well to his community.

August 29th. Briefly visiting Ira Lockwood's X-Ray conference this morning in Kansas City and the rest of the day aboard the Southern Belle with the opportunity to catch up on current medical literature.

September 5th. In committee session deliberating the problems of admissions to the medical school but mostly wondering just why the Albert Pike catering staff would expect us not to be able to differentiate "T-bone steak" from "veal cutlet," the waiter making two efforts to so confuse us. Finally, we send it all back to the kitchen and we hope they still have it.

September 7th. Cruising in a Piper Cub against head winds across the beautiful Arkansas valley to Pine Bluff where the Jefferson County Medical Society meets with



but two absentees to dedicate the new chest and tumor clinic and debate various problems of medicine and we are permitted to speak on malignancies of the lung and afterwards to the Hundleys' where the youngsters are all aglow with initiation into a school club.

September 8th. To Fayetteville professionally and briefly visiting at the well-managed City Hospital with the Leshes, Richardson and Paddock before heading for a late dinner at home.

September 9th. With Koenig and Wrightsman to meet with the enthusiastic Pope-Yell County Medical Society in Russellville this evening, Ellis Gardner refraining from all "I told you so" comment on the state-wide health plan but the Society is firm in its opinions as shall be demonstrated.

September 12. Meeting with the chancellors of the American College of Radiology discussing and making policy decisions all the day.

September 13th. Guest of General Electric today inspecting its modern air-conditioned streamlined production miracle and then to dedication of the Coolidge laboratory and later to Waukesha where a friend is hospitalized far from home and able to bring some Arkansas cheerfulness to his bedside.

September 14. In relatively leisurely manner to the scientific exhibits, the instruction courses and the program of the American Roentgen-Ray Society with a short trip to Chicago's Railroad Fair, the railroads' hopeful propagandizing effort.

September 16th. Tonight the Tenth Councilor District Medical Society meets atop Highway 71 and there is much of merriment and some amusing tales.

September 17th. Press reports are that John Wilson's home was burglarized, the loot being one watch and twelve dollars. Just when we thought John was getting along in the world!

## OBITUARY

WILL C. BRAUN, business and circulation manager of the American Medical Association for 54 years, died September 12, at Presbyterian Hospital in Chicago of uremic poisoning. He was 80 years old.

Mr. Braun's home was at the North Shore Hotel in Evanston. He is survived by his wife, Lulu; a daughter, Mrs. Harrie Hall, also of Evanston; and his son, George, of Wilmette, Ill.

Funeral services were held September 14 in Evanston and burial was at Ripley, Ohio.

Mr. Braun retired as Business Manager of the American Medical Association in July, 1946, to become Business Manager Emeritus. At a reception and dinner given in his honor at that time, many leaders in the commercial fields allied to medicine spoke their appreciation of the cordial relationships which he had established and maintained throughout the years. The Board of Trustees and officers of the A. M. A. also attended.

Morris Fishbein, M.D., editor of The Journal of the American Medical Association, said at the dinner:

"Today the nine-story building at the corner of Dearborn and Grand in Chicago is a monument to the life-long work of Will Braun. When Will Braun came to the American Medical Association in 1891, the circulation of The Journal was 3,500 copies per week. Today the circulation is more than 115,000. And Will Braun made it a great advertising medium also.

"The personality of Will Braun has been such as to endear him to all who met him at work or at play. In my personal travels among physicians and tycoons in the medical industry all over the nation, I have never heard anywhere anything but the warmest praise for Will C. Braun."

Mr. Braun was born August 24, 1868, in Ripley, Ohio. He and Mrs. Braun, who was Lulu Fleig before their marriage, were married in Ripley in 1892.

At the age of 23 he gave up a clerkship in a general store in Ripley and came to Chicago. He was employed by the American Medical Association as subscription solicitor, and proof-reader, and successively was appointed circulation and subscription manager, advertising manager, and, in 1942, business manager.

CRANDALL P. SISCO, age 62, died at his home in Springdale August 24th after a long illness. Born November 4, 1886, at Osage, Arkansas, he graduated from the University of Arkansas School of Medicine in 1911 and practiced at Osage until his removal to Springdale in 1921. He was an active member in his medical society, being a past-president and had represented the county society in the House of Delegates of the state society, a Fellow of the American Medical Association; a former member of the Springdale City Council; chairman of the county welfare board, member of the Odd Fellows lodge and of the Church of Christ. He was married in May, 1911, to Miss Lucy Sims, who, with his son, Dr. Friedman Sisco, three brothers and two sisters, survives him.

JOHN RILEY LOFTIS, age 73 years, died at his home in Pocahontas September 15th. A graduate of the University of Nashville Medical Department in 1900, he practiced at Supply and at Maynard before locating at Pocahontas in 1928. In 1936 he established the Loftis Clinic and was associated there with his sons, Dr. William O. Loftis and Dr. John R. Loftis, Jr., now of Cleveland, Ohio. Other surviving relatives are his wife, a son and three daughters.



## PROCEEDINGS OF SOCIETIES

Dr. and Mrs. T. E. Rhine entertained the members of the Ouachita County Medical Society and their wives, as well as many doctors and their wives from all over Arkansas, with a barbecue served on the lawn at their home in Thornton Thursday night, September 2nd. There were over one hundred in attendance at this delightful social occasion.

Dr. Rhine was celebrating fifty years of the practice of medicine. He has had a distinguished and colorful career as a country doctor.

The Ouachita County Medical Society named Dr. Rhine "The Outstanding Family Doctor of the Year" in its membership and decided to foster his name at the April meeting of the Arkansas Medical Society as "The Outstanding Family Doctor of the Year in Arkansas." If successful in this project, Dr. Rhine will be presented as a candidate at the next meeting of the American Medical Association as "The Outstanding Family Doctor of the United States."

R. B. Robins, M. D., Secretary.

The Arkansas Heart Association was organized July 16th with the following officers: President, Joseph T. Roberts, Little Rock; Vice-president, Driver Rowland, Hot Springs National Park, and Secretary-treasurer, John E. Gruetter, Little Rock.

## PERSONALS AND NEWS ITEMS

M. E. Foster and E. C. Moulton, Fort Smith, spent a recent vacation at Crede, Colorado.

Dr. and Mrs. R. G. Kramer, Fort Smith, spent a recent vacation in Minnesota.

Physicians who have had experience in the handling of illness resulting from exposure to chlorinated solvents are asked to send their names of the office of the state secretary in order that a list may be compiled.

**"Urology Award"**—The American Urological Association offers an annual award of \$1,000 (first prize of \$500, second prize \$300 and third prize \$200) for essays on the result of some clinical or laboratory research in Urology. Competition shall be limited to urologists who have been in such specific practice for not more than five years and to residents in urology in recognized hospitals.

"The first prize essay will appear on the pro-

gram of the forthcoming meeting of the American Urological Association, to be held at the Biltmore Hotel in Los Angeles, May 16-19, 1949."

For full particulars write the Secretary, Dr. Thomas D. Moore, 899 Madison Avenue, Memphis 3, Tennessee. Essays must be in his hands before February 15, 1949.

H. A. Causey, Pine Bluff, and Henry G. Holtenberg, Little Rock, spent a recent vacation at Ludington, Michigan.

S. F. Hoge, Fayetteville, has been elected a Founding Fellow of the College of American Pathologists.

L. H. McDaniel, Tyronza, and Gordon P. Oates, Little Rock, have just returned from the fourth annual conference of the professions, in Chicago, where 400 leading physicians and dentists of the United States were told by several nationally-prominent speakers that compulsory national health care would be a deciding step toward national socialism and a loss of individual liberty.

The sessions were sponsored by the National Physicians Committee, which has taken the leadership in the fight against socialized medicine in the United States. From them will develop a continuing program of the medical and dental professions to ward off compulsion and to maintain freedom of action in the interest of the nation's health, Dr. Oates said.

Melchoir Palyi, of Chicago, economist of international renown, who recently returned from an invitational lecture tour of European countries, described the workings of socialized medicine in Europe. "Under every governmentai system, medical practice suffers in quality," Dr. Palyi said. "It operates with huge deficits, results in wholesale misuse of funds, and indifference, mechanized diagnosis and treatment."

Erwin D. Canham, editor of the Christian Science Monitor, Boston, and president of the American Society of Newspaper Editors, praised the National Physicians Committee for its "valiant campaign against compulsion" which has brought "gratitude but also much abuse."

Chas. R. Henry, Little Rock, attended the American Society of Obstetricians, Gynecologists and Abdominal Surgeons at Hot Springs, Virginia, recently.

The Tenth Councilor District Medical Society met in dinner session at Stinsons on Highway 71 September 16th. Officers re-elected are Loyce



Hathcock, Fayetteville, president; Art B. Martin, Fort Smith, vice-president, and A. S. Koenig, Fort Smith, secretary-treasurer. The Society will meet in Fort Smith during September, 1949.

Joe Verser has been elected surgeon of the Harrisburg American Legion post.

George Burton, El Dorado; D. A. Rinehart, Little Rock, and W. R. Brooksher, Fort Smith, attended the recent Chicago session of the American Roentgen-Ray Society.

Dr. and Mrs. Chas. W. Hall, Greenwood, spent a recent vacation in Colorado.

T. Dale Alford, who recently passed his examinations as a diplomate of the American Board of Ophthalmology, is now associated in practice with Raymond Cook at 601 Scott Street, Little Rock.

T. S. Van Duyn, Stuttgart, and Chas. B. Padlock, Fayetteville, have been elected post medical advisers of their respective American Legion posts.

The Craighead-Poinsett County Medical Society was addressed at a dinner session in Jonesboro September 2nd by Clay Sloan, Jonesboro, "A Trip to Europe," and Frank McDowell, Saint Louis, "Management of Facial Injuries."

J. H. McCurry, Secretary.

The Jefferson County Medical Society was addressed September 7th by W. R. Brooksher, Fort Smith, on "Carcinoma of the Lung."

## 26th ANNUAL FALL CLINICAL CONFERENCE KANSAS CITY SOUTHWEST CLINICAL SOCIETY

For the twenty-sixth consecutive year, The Kansas City Southwest Clinical Society will present the Annual Fall Clinical Conference in Kansas City, Missouri, October 4, 5, 6, 7, 1948.

Entrance to the meeting this year will be the Wyandotte Concourse, Municipal Auditorium, through the Arena where the scientific and technical exhibits and movies will be housed.

Sixteen distinguished guest speakers, representing general medicine and surgery and many of the medical and surgical specialties, will take part in this program. Also, scientific talks will be made by forty-two members in the sectional lecture groups.

Monday evening's session will open with talks relative to the medical profession and military services, by Rear Admiral H. L. Pugh, Ass't Sur-

geon General, U. S. Navy and Colonel Wm. H. Amspacher, Chief of Procurement Branch, U. S. Army.

The Clinicopathologic Conference will be conducted by Howard T. Karsner, Professor of Pathology, Western Reserve University, with nine guest speakers participating.

The two daily round table luncheons, one medical and the other surgical, will conclude with an hour of questions and answers from the registrants to the guest speakers.

The Social Evening for all registrants, October fifth, promises an hour of rare entertainment following the dinner.

Your registration fee of fifteen dollars covers all these activities. See your last issue of The Kansas City Medical Journal for details of the program.

## RESOLUTION

WHEREAS, an all-wise Providence has seen fit to remove from our midst our valued co-worker and a faithful member of the staff of the Arkansas Children's Hospital, Dr. Wilfred R. Parsons, we, the staff of the Arkansas Children's Hospital mourn and deeply regret his sudden and premature death.

WHEREAS, in answer to a call of service from his country's leaders during the late war he gave of his skill and of his energies unstintingly and at great personal sacrifice.

WHEREAS, as a physician in his chosen field of Pediatrics he attained a great measure of distinction and won the respect of his colleagues as well as the gratitude and love of a host of sorrowing people.

BE IT RESOLVED, that the staff of the Arkansas Children's Hospital express to his family the esteem in which he was held as a member of its staff and its heartfelt sympathy to the family at the untimely loss that they have sustained; that a copy of this resolution be made a matter of record in the minutes of this meeting; that a copy be sent to the family and a copy be sent to the Journal of the Arkansas Medical Society.

Sam Phillips, M. D.

Barney Briggs, M. D.

Ellery C. Gay, M. D.

## RESOLUTION

WHEREAS, an All-Wise Providence has seen fit to remove from our midst our valued co-worker and faithful member of the Staff of the Baptist State Hospital, DR. WILFRED R. PARSONS, we, the Staff of the Baptist State Hospi-





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1. Chalgren, W. S., and Baker, A. B.: Tropical Diseases: Involvement of Nervous System, *Arch. Path.* 41:66 (Jan.) 1946.
2. Brawne, D. C.; McHardy, G., and Spellberg, M. A.: Statistical Evaluation of Amebiasis, *Gastroenterology* 4:154 (Feb.) 1945.
3. Manson-Bahr, P.: Some Tropical Diseases in General Practice: "A Post-War Legacy," *Glasgow M. J.* 27:123 (May) 1946.



tal, sincerely mourn and deeply regret his sudden and premature death, and

WHEREAS, in answer to a call of service from his country's leaders during the last War, he gave of his skill and energy at great personal sacrifice, and

WHEREAS, as a licensed physician in his chosen field of Pediatrics, he attained a great measure of distinction, and won the respect of his colleagues as well as the gratitude and love of a large following of patients,

BE IT RESOLVED, that the Staff of the Baptist State Hospital express to his family the esteem in which he was held as a member of the Staff, and its heartfelt sympathy to the family at the untimely loss that they have sustained, and

BE IT FURTHER RESOLVED, that a copy of this Resolution be made a matter of record in the Minutes of this meeting and a copy be sent to the family and to the Journal of the Arkansas Medical Society.

This Resolution is respectfully submitted to the Staff by your Committee.

Charles Wallis, M. D.  
Vida Gordon, M. D.

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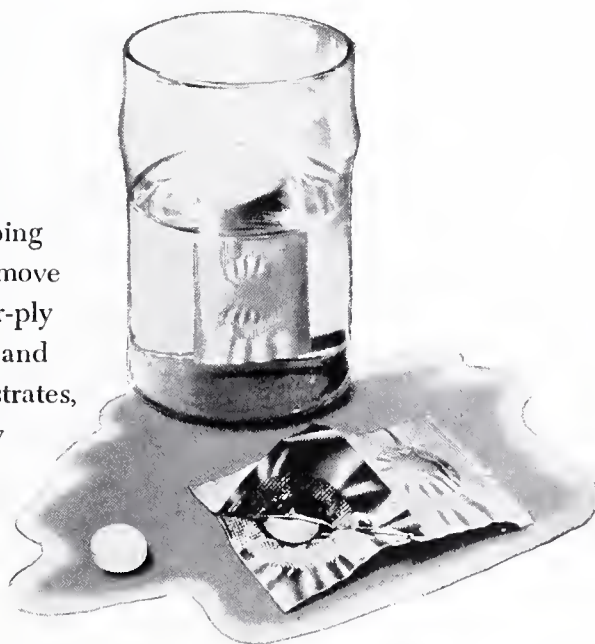
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1. Hoffman, W. S., and Volini, I. F.:  
Am. J. M. Sc. 213:520 (May) 1947

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## WOMAN'S AUXILIARY NEWS

The Southeast Arkansas Medical Auxiliary met Monday, August 16th, at Crossett for dinner with the doctors at the Prairie Country Club. There were sixteen present including two visitors as, Mrs. George C. Burton of El Dorado and Mrs. N. Klam of Monroe, La.

While the doctors were having their meeting, Mrs. W. A. Regnier, President, called the Auxiliary to order. In the absence of the Secretary, Mrs. Pelham McGehee, Mrs. H. T. Smith of McGehee read the minutes of the last meeting and they were approved. Following a short business session the meeting adjourned to meet in McGehee September 20th. A social hour was enjoyed.

Mrs. Van C. Binns.

## BOOK REVIEWS

*A Textbook of Clinical Neurology*—With an Introduction

to the History of Neurology: By Israel S. Wechsler, M. D., Clinical Professor of Neurology, Columbia University, N. Y.; Neurologist, The Mt. Sinai Hospital; Consulting Neurologist, Montefiore Hospital and Rockland State Hospital, N. Y. Sixth Edition. 829 pages with 162 illustrations. Philadelphia and London: W. B. Saunders Company, 1947. Price \$8.50.

A standard text for student and practitioner, appearing in its sixth edition, presented from the experiences of the author.

*A Manual of Clinical Therapeutics*—A Guide for Students and Practitioners: By Windsor C. Cutting, M. D., Professor of Therapeutics, Stanford University School of Medicine, San Francisco, California. Second Edition. 712 pages, with 30 illustrations. Philadelphia and London: W. B. Saunders Company, 1948. Price \$5.00.

The author has written a concise, useful text for students and practitioners, giving the essentials of various diseases with the indicated therapeutic procedures, inclusive of drugs, diet, physical therapy and surgery. Perhaps unusual, but worth-while, is the listing of methods of removing stains.

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# The JOURNAL OF THE ARKANSAS MEDICAL SOCIETY

Vol. XLV

FORT SMITH, ARKANSAS, NOVEMBER, 1948

No. 6

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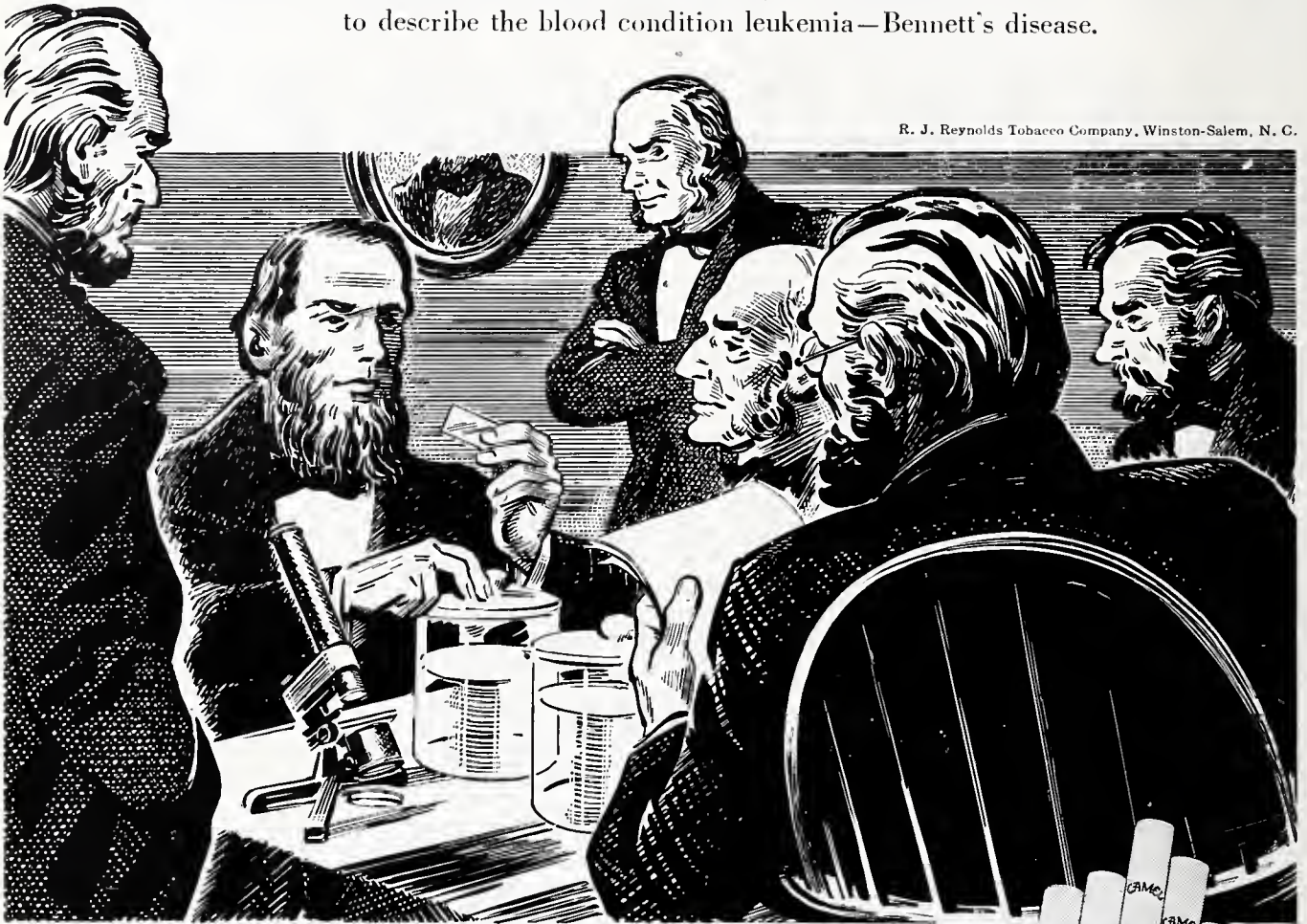
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No. 6

### OCCUPATIONAL HEALTH AND ITS SIGNIFICANCE IN THE TRENDS OF MEDICAL PRACTICE \*

CARL A. NAU, M. D.

Galveston

From 1836, when Arkansas had a population of 60,000 and became a state, until 1940, when the population had expanded to 2,000,000, there was little change in the balance (or unbalance) between agriculture and industry.<sup>1</sup>

In 1940, Arkansas was still largely a rural, agricultural state. Since that time, however, business men, governmental agencies and educators have been able through cooperative action to bring about the establishment of manufacturing plants in large numbers. It is estimated that more than a thousand new industries have arisen; and, with this increase, there has come an increase in wealth. The per capita income has risen from \$252 in 1940 to \$654 in 1945 (much above the national average). The total state income has risen from less than one-half billion in 1940 to over one billion, two hundred million dollars in 1946. The value of manufactured products has risen from 160 million in 1940 to 618 million in 1946.

What does all this mean? It means a tremendous increase in the number of industrial employees and new and increased numbers of health problems. It means an ambitious and energetic people who are striving to improve and advance themselves and their state.

Arkansas' new occupational disease law<sup>2</sup> is evidence of an interest in employee health and safety and of a desire to protect all employees from hazards which may be associated with or arise out of the nature of the employment.

American industry is dependent for its output and its profits upon the productivity of its employees, their good will and the quality of the products made. More and more the value of man himself is recognized and admitted. For years much stress has been laid upon the pre-

vention of accidents and upon the satisfactory care of those who may be injured. But, in spite of all of our efforts in safety, there has been, in general, no decrease in accident rates since 1932.<sup>3</sup> This is due probably, in a large measure, to the fact that we have devoted all of our time and study to the machine and very little to the physical and mental status of the person who operates the machine. We have neglected mental attitudes and accident proneness. More and more we recognize the importance of proper job placement and of good and adequate medical care for the conservation and improvement of health.

Industry is relying more than ever before upon the physician to aid in its problems. It recognizes the value of good and adequate medical training and the need for medical people to acquaint themselves with industrial problems, philosophies, operations, processes, materials used and products made. The knowledge obtained from such acquaintance makes it possible to place employees more intelligently in jobs for which they are physically and mentally fitted. It makes it possible to diagnose and treat conditions in employees more accurately; and to get them back on the job more quickly and in better physical and mental condition. All these things promote good will between employer and employee and lead to increased production of a better quality of goods.

Vonachen in his article entitled "Industrial Health Programs in Action" enumerates as follows the benefits of a good industrial health program to employer and to employee.<sup>4</sup>

#### "Benefits to Employer:

1. Avoids entrance of potential human liability
2. Assures healthy working force
3. Promotes safety
4. Improves employee-employer relations
5. Protects against public criticism
6. Affords better job placement
7. Promotes community relations
8. Improves our own trade position

#### Benefits to Employee:

1. Affords proper job placement

\* Read before Seventy-second Annual Session, Arkansas Medical Society, Little Rock, April 17, 1948.



2. Increases period of gainful productive employment
3. Insures family and dependents a more stable economic security
4. Protects fellow employees
5. Assists in up-grading employee safety
6. Aids in adjustment of his work
7. Provides him with information about his own physical condition
8. Learns to rely on approved medical care
9. Learns the importance of prompt medical care
10. Assists in obtaining benefits due him
11. Prevents development of disabling disease"

It has been suggested by Chancellor Harry Woodburn Chase of New York University at a meeting of the Bankers Club in New York City<sup>5</sup> that it is an increasing duty of industry to accept financial responsibility for the operation of medical schools.

Industry, of course, will only accept this responsibility if it feels such money spent will be a good investment. Unless industry comes to the aid of medical schools, it is not unlikely that government subsidies may be necessary. Such subsidies might give government certain controls over medical education and medical care. It behooves us, therefore, to supply industry with the best quality of medical care possible for its employees.

Large industries have long recognized that a sound and adequate industrial health program is valuable, not only to the employer, but also to the employee. Their programs touch every department and employee and include:<sup>6</sup>

- I. Accident prevention—including first aid
- II. Industrial hygiene—which is engineering and laboratory control of potential health hazards located and evaluated. It also includes plant sanitation.
- III. Industrial medical services
  - A. Health examinations including the psychological
    1. Preplacement
    2. Periodic and request
    3. Return to work
    4. Key personnel
  - B. Laboratory service, including X-ray
  - C. Diagnosis and treatment of occupational injury and/or disease
  - D. Rehabilitation
  - E. Nutrition
  - F. Education for health conservation and health promotion

There has been much argument of late as to just how far the plant medical department shall

go in the field of diagnosis and treatment of non-occupational conditions.<sup>7</sup> I believe it safe to say that most industrial physicians and employers believe that non-occupational conditions should be referred to the family physician. Such referral promotes good will and good working relations between the industrial physician and the family physician. But it also imposes a new responsibility upon the family physician, namely, to be able to interpret the possible effects of industrial environments and working conditions upon the symptomatology of non-occupational disease and response of the patient to therapy. The family physician must have an interest in his patient's job and be able to evaluate somewhat his capacity to return to it after an illness.

It has been shown that industry wants only the very best medical care for its employees—both for occupational and non-occupational conditions. They want their employees back on the job at the earliest time and in the best condition possible. This is most economical in the long run, and the industry is willing to pay well for such care.

We have referred to industrial medical departments and industrial health programs. The activities enumerated are found only in the large industries of which there are very few in Arkansas. Most of your plants are small; very few have more than a first aid room and, perhaps, a full-time nurse and a physician "on call" or part-time. Usually, the general practitioner or specialist nearby is called for professional service. As Arkansas becomes more and more industrialized it will do so chiefly by the creation of small plants. The need for general practitioners for the care of industrial employees and their families will grow. Such needs can be met most effectively and satisfactorily if medical schools incorporate some basic teaching in occupational health and disease and if physicians try to familiarize themselves with industrial operations, materials used, processes involved and industrial environmental conditions in general.

This is a tremendous responsibility. No successful practitioner has either the time or the basic training necessary to evaluate accurately the potential health hazards in industry. He is not in a position nor does he have the equipment to determine the kind or the severity of a dust exposure. Rarely would he care or dare to make dust counts, particle size determinations or dust analyses. This must be done by experts trained in this activity and qualified as expert witnesses in our courts. Very few physicians could or would determine the presence or absence of toxic gases, vapors, mists, metals or



radio-active materials and the quantities present. This holds true for toxic materials of any and all types. It is for such analyses and determinations or evaluations that the present-day industrial hygienist came into existence. He has the training, equipment, techniques and the knowledge to locate and evaluate health hazards. He relies upon engineering and laboratory tests; and through such tests and special techniques he can aid the physician, not only in supplying him with information which may lead to more accurate diagnosis, but also in his treatment and rehabilitation. He knows the significance of potential hazards and methods for the elimination or control thereof. He can give sound and constructive advice in placing the patient back on the job.

In the State of Arkansas, your State Board of Health has a Division of Industrial Hygiene, staffed by well-trained and competent personnel with the essential and basic equipment. This staff is familiar with and experienced in the techniques and procedures necessary to evaluate potential occupational health hazards.

Every physician in Arkansas should feel free to call upon this Division for cooperation and aid. I know that it will be given gladly.

This is the age of specialization—even in Medicine.<sup>8</sup> The shortage of general practitioners is acute and generalized. There are whole counties in Texas which have been taken over by the chiropractors and other similar groups. Industrial physicians, too, are trying to develop a plan for a specialty board. This, some think would raise the dignity and prestige of occupational medicine. If such ever happens, large industry will absorb quickly the entire group of specialists, and the smaller plants will continue to search for physicians who have an interest in and some basic knowledge of occupational health and disease. And as your state continues to industrialize (as it will) the need for physicians to serve industry will continue to grow.

Medical practice in industry is evolving more and more into a program of prevention. The disabling illness or injury of an employee whose skill and experience make him a "profit-maker" to the company is costly. His training has required much money, time and practice. Industry wants all illness and/or injury prevented or reduced to a minimum by whatever means we have at our disposal. They want physicians to be able to recognize early symptoms which may indicate occupational disease. They want to be advised when employees should be moved in order to prevent an approaching occupational

illness.

As industry goes more and more into the matter of mass chest X-rays of its personnel and for pre-employment purposes,<sup>9</sup> they will rely more and more upon physicians to advise them whether or not men are employable without being a danger to themselves or to their fellow men; and to advise them as to the proper placement of those who have, or may have had, some disease of the lungs. This is no small responsibility for the physician and can only be met fairly and intelligently if the physician has a "working" knowledge of American industry, its philosophy and ethics; and of the potential health hazards, working conditions, industrial operations and environmental factors which may be a hazard to good health.

In the Medical Branch of the University of Texas, we teach Occupational Health and Disease as a required course for all students. As a part of the course, we take the students through two industries—one of which has a well-organized and competently staffed medical department with an approved program for health and safety. The other permits us to demonstrate quite an extensive variety of potential health hazards both as to environment and as to materials used, by-products and finished products. We believe that such teaching and demonstration is stimulating our students to think in terms of occupational health and disease and is a favorable influence in training men who will render a greater service to Texas industry. We believe such improved service will interest the industry in our school to the point where they may be willing to aid us financially. We have some concrete proof for this now. Medical practice must aid and ally itself with American industry if it is to maintain its independence. Industry must support medical education if medical education is to avoid governmental subsidy and if industry is to get more productive and more cooperative employees.

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## THE CONTROL OF MORTALITY IN THYROID SURGERY \*

J. HARRY HAYES, M. D.  
Little Rock

Thyroid surgery has advanced from one of the most hazardous to one of the most satisfactory and safest types of surgery. Each goitre is a disease unto itself and must be handled in an individual manner.

Many goitres at this writing require no special measures or preoperative treatment. They are ready for surgery under proper preoperative sedation. Here we will mention that old age or senility is often its own sedative, and very little sedation is needed for aged patients. On the other hand the young do well under heavy sedation.

We now come to a discussion of the toxic thyroid. The requirements for safe thyroid surgery have been well standardized; i. e.:

1. A favorable pulse date. (1)
2. Stationary weight. Or gain in weight. (1)
3. Lessened nervousness. (1)
4. Satisfactory aponea test. (1)
5. Satisfactory B. M. Rate. (1)
6. Satisfactory morale.

The requirements listed above must be met and it may be said that the time element is of no importance within itself, but each and every requirement must be met regardless of the time element.

"Experienced judgment in the preparation of these patients and the decision concerning the optimal time for operation are of equal, if not greater, importance than the technical procedure. The same may be said of anaesthesia and postoperative management, since without experience and judgment in these fields, a thyroidectomy, although scientifically executed, may have an unsatisfactory result. In no other field of surgery is a greater variety of skill and experience needed to obtain a good result and a low mortality." (2)

There is more than one method for preparing toxic goitre patients for safe thyroid surgery. The conventional method of treatment, i. e., rest, iodine, sedatives, a high caloric intake and a high vitamin diet, with vitamin D, calcium and phosphorus, seems to have stood the test of time in a most satisfactory manner. This customary regime reduces the preoperative therapy and hospitalization to a minimum and safely so, provided the judgment of the patient's condition is correct. The patient's expenses, while

not to be weighed against measures to safeguard life, are none the less a factor to be considered.

"Significant in the early history of thiouracil is the varied response which it received throughout the medical world. At first it was hailed as a panacea which would ultimately displace the surgical management of hyperthyroidism. This enthusiasm, however, was short lived. The pendulum soon swung and rejection even replaced the early acclaim. The widely recognized toxic effects appeared to outweigh its potential value. With the accumulation of more data there appears to be a more moderate outlook for some thiouracil like drug, less toxic than thiouracil, in the preoperative preparation of selected patients with hyperthyroidism." (3)

Where it is necessary to adopt measures other than the conventional treatment spoken of above, and where for good reasons one is afraid to risk the antithyroid drugs and after intravenous glucose and even transfusions have failed to bring the proper response necessary—it is well to remember that every toxic thyroid that does not respond to treatment and does not die is bound to have a spontaneous remission. This is the equivalent of saying that thyrotoxicosis is essentially a chronic disease, although we do have exacerbations of the chronic process.

If the remission does not occur and the patient dies, the surgeon can find consolation in the thought that had he intervened with some drastic, emergency measure he would probably have hastened the patient's death.

The patient as a whole must be considered and not merely the pulse rate, the basal metabolic rate and the like. There is frequently associated pathology present and it must be determined whether the pathology present will influence the morbidity or the mortality. This associated pathology must be brought under control or corrected so that recovery from the thyroidectomy will not be interfered with. It is almost inconceivable that one gland of internal secretion can be out of line without having some other gland of internal secretion out of line.

(4) Here is borne out the oft-repeated assertion that in the management of hyperthyroidism the entire field of medicine with all its specialties is called upon. Here, too, is where surgeon, internist, roentgenologist, and all the other specialists can be of much assistance to each other and, especially to the patient. While co-operation between the various specialists is highly desirable and of much value, some one has to make

\* Read before the Seventy-second Annual Session, Arkansas Medical Society, Little Rock, April 15, 1948.



the decision when the optimal time for intervention has arrived. Since the surgeon must accept responsibility for all developments he should be the one to determine when the patient is ready and to fix the time of operation.

There are various techniques of doing goitres, and also various anaesthetic agents. Many surgeons are followers of two-stage operations and the like. It is the author's opinion that the operator should be well acquainted with all techniques. The anatomy encountered should be well understood. Frequently the surgeon will develop his own technique. One essential is that the proper plane of surgical cleavage must be entered. This is between the true and false capsule. With that initial step accomplished, the work becomes easy; but when the proper plane of surgical cleavage is not entered, neither the operator, the assistants nor the observers know where they are.

It would be well to call attention to the fact that in certain long standing cases where much fibrosis has taken place, the patient's condition may appear good and the requirements for safe surgery may appear to have been met, yet at the time of operation it is almost impossible to rotate the gland. To do a satisfactory thyroidectomy, it is essential to be able to rotate the gland. There are cases then, where the patient is ready but the gland is not. The general condition of the patient, plus the history of the case and a very careful examination of the gland, usually are sufficient to avert possibility of undertaking an operation when the gland cannot be rotated. At times the most competent operator may go astray, with resultant nerve and parathyroid injuries.

As for anaesthesia: There are too many different agents for discussion. Many have good qualities and some have bad qualities. It must be admitted that any inhalation anaesthetic does some harm to the patient. It is the author's considered opinion that local anaesthesia is by far the method of choice and is responsible for the saving of many lives. The more hazardous and toxic the patient, the more important the anaesthetic becomes.

Ligations seem to have become something of the past. The same thing should be said about lobectomies, with this exception: When the patient's stamina has been misjudged, a lobectomy should be business of the first order. It becomes a life saving measure.

However, no surgery should begin until it is thought that the patient is adequately prepared for a total thyroidectomy.

Most authors adequately call attention to the

value and necessity of good, sound, and mature clinical judgment. This cannot be replaced even in a minor way with laboratory tests. Tests should be a confirmatory precaution, not a substitute for experience and clinical judgment.

In the control of mortality in thyroid surgery, one should keep in mind the complications that could arise during or following the operative procedure and guard against them.

The complications are listed, and discussion follows:

1. Hemorrhage
2. Thyroid crisis
3. Stridor
4. Shock
5. Collapse of trachea
6. Tracheitis
7. Pulmonary complications
8. Cardiac complications
9. Embolism
10. Alimentary tract complications
11. Infection
12. Serum collection
13. Acute hypothyroidism
14. Hyperthyroid psychosis
15. Tetany

**HEMORRHAGE:** HEMORRHAGE is one of the most important complications during and following thyroidectomy. It is listed first and for very good reasons: It is a complication that can cause death in a very short time. HEMORRHAGE is capable of causing many of the other complications listed. **THYROID CRISIS** is certainly encouraged in a toxic case where there has been much HEMORRHAGE—STRIDOR may be caused by pressure upon the recurrent nerves or by **compression of the trachea itself**. **SHOCK** is in proportion to the actual blood loss, the time element, trauma, and prolongation of some anaesthetics used. **TRACHEITIS** is sure to follow. **PULMONARY** and **CARDIAC** complications are encouraged to some degree. **EMBOLISM** which is very rare in thyroid surgery would seem to be encouraged. **INFECTION** would surely be invited and **SERUM** collection is a foregone conclusion. It is reasonable to assume that transitory **TETANY** could be produced by pressure or trauma to the parathyroid bodies. Hyperthyroid psychosis is greatly encouraged.

In other words, HEMORRHAGE may be one of the big and important immediate complications as well as one of the delayed complications. This complication may arise before there has been time for the nerves to have been reached. The experienced operator should seldom encounter a bad HEMORRHAGE at the



table or later. The more friable the gland the more apt the bleeding. Any appreciable HEMORRHAGE should be taken care of before more work is done that might cause more HEMORRHAGE. For the prevention of delayed HEMORRHAGE, no wound should ever be closed until absolute hemostasis has been secured. In coping with oozing surfaces, it is not wise to insert a drain as a safety measure. It is much better to pack the neck and do a delayed closure. In case of delayed HEMORRHAGE the wound should be opened as soon as the condition is discovered. No anaesthetic is needed. Delay invites complications that are capable of causing death.

**THYROID CRISIS:** Thyroid crisis to the majority means hyperaccentuated thyrotoxicosis. It is the real reason why toxic thyroid cases are prepared so carefully for surgery. Many of the other complications can be classified as accidental. Thyroid crisis is the complication that all fear. Thyroid surgery has advanced to such a high degree of efficiency that, in well regulated clinics crises are seen more frequently prior to surgery than afterward. Many analyses, however, show thyroid crisis as the leading cause of death. Correct surgical judgment and a high degree of operative skill, as well as ideal postoperative care, are the secrets of preventing crises. The above covers too much to be discussed in the allotted time. It might be well to discuss factors that can produce a thyroid crisis.

Crile Sr. stated that the only factors known to him that could produce a thyroid crisis were:

1. Pain
2. Emotional excitation
3. Foreign proteins — auto-intoxication, wound secretion, focal infection, infectious disease
4. Asphyxia
5. Hemorrhage
6. Inhalation anaesthesia
7. An injection of adrenalin (5)

A high temperature with a high pulse rate and increased systolic blood pressure, along with much greater nervousness, are indications that a crisis is approaching. Adequate measures, or all measures known to be of benefit, should be instituted at once. The fever must be reduced.

**STRIDOR** means that the trachea is compressed or one or both of the nerves have been injured. In exceptional instances, enough edema of the larynx may be present to produce STRIDOR. This complication is not necessary at the table as it has been abundantly demonstrated that clamps can be placed between the

thyroid gland and the nerves without causing any disturbance. In case STRIDOR develops, a tracheotomy should be instituted at once. To delay is to court disaster. In the event of postoperative laryngeal edema, hours should not be permitted to pass before tracheotomy is done. If pulling is present, even with cyanosis absent, tracheotomy is indicated.

**SHOCK** should be treated as SHOCK by any other surgical measure. In the absence of HEMORRHAGE, and prolonged operating, SHOCK will not be encountered especially with the use of local anaesthesia. A transfusion of whole blood is ideal if the SHOCK is quite pronounced.

**COLLAPSE OF TRACHEA** requires immediate tracheotomy. Some authors state that a true collapse of the trachea does not happen. If it does it should be hard to cope with.

**TRACHEITIS** is almost sure to happen to some extent. The trachea should be stripped bare in each thyroidectomy. A croup kettle frequently gives relief. The complication is a minor one.

**PULMONARY COMPLICATIONS** may arise after thyroidectomy just as in other surgical procedures. The ones encountered are usually bronchitis, pneumonia, massive collapse of the lung and embolism. Embolism is rare and under local anaesthesia the other complications are not to be expected. There are many valuable drugs at the present time for these complications.

**CARDIAC COMPLICATIONS** are seldom encountered when the patient has been adequately prepared. Simple tachycardia is expected. Auricular fibrillation may become very serious. Digitalis or quinidine oftentimes are certainly appropriate. Acute dilatation of the heart may occur. Special attention to the preparation of the patient and local anaesthesia are prophylactic measures for cardiac as well as pulmonary complications.

**EMBOLISM** might be expected to occur frequently in thyroid surgery, due to the high vascularity of the area. Fortunately it is seldom encountered. Oxygen is of much benefit.

**COMPLICATIONS OF THE ALIMENTARY TRACT**, such as nausea and vomiting, occasionally follow thyroidectomy and most frequently are caused by drugs. The iodine may be given by vein instead of orally, and most all patients tolerate codeine well. Diarrhoea following thyroidectomy may encourage crises. Appropriate measures should be instituted at once. Paregoric and bismuth may be of value.

**INFECTION** should seldom ensue. If it does, drainage should be instituted at once. This may



prevent the occurrence of a mediastinitis. In such situations, one will be glad that absorbable sutures were used.

SERUM COLLECTION is a frequent but minor complication. Any large dead space left will fill with serum. This is usually drained at the office.

ACUTE HYPOTHYROIDISM is rare. Thyroid extract corrects the condition. A B.M.R. determination is not essential.

HYPERTHYROID PSYCHOSES, if associated with a very rapid pulse and a high fever, may indicate the approach of Thyroid Crisis. The patient should be well sedated, well oxygenated and the fever reduced.

TETANY may be detected by a blood calcium determination. Then intravenous calcium should be administered, after which calcium should be given by mouth and accompanied by an adequate amount of vitamin D. The blood calcium determination is of scientific interest but, with carpal spasm, circumoral pallor and the like, calcium is needed at once. Repeated injections may be needed. Fortunately most acute postoperative parathyroid TETANY is transitory. It may be chronic, however. Dihydratachysterol has been reported as having been very beneficial. The prevention of TETANY lies in the preservation of the parathyroid bodies. The false capsule should be pushed or retracted back, and not removed. Thus will the likelihood of TETANY be lessened.

Operations for recurrences should never be done before the blood calcium has been determined, and the conditions of the vocal cords should surely be known.

Many things may happen. Mature, sound and experienced clinical judgment, coupled with a high degree of operative skill and speed, and a well regulated institution for handling cases both preoperatively and postoperatively, produces a very favorable mortality rate. It is well known that a general ward is no place for the preparation of toxic goitre patients and no place for an ideal postoperative recovery.

To obtain some idea of what the mortality rate would average, questionnaires were sent to large clinics and individual surgeons. They were asked for the mortality rate of their last 1,000 thyroidectomies or their mortality rate over the last five-year period. Twelve responded with answers that, at least, gave their approximate mortality. The total used was 11,536 thyroidectomies with 67 deaths listed. The author added 882 thyroidectomies of his own in one institution with one death. This made a total of 12,418 cases with 68 deaths for a mortality rate

of .547 plus per cent.

Two or three replied with as many as 18,000 to 25,000 cases. It was not desired to use such a large number of cases from one institution, but it should be added that in these reports the mortality rate was considerably less than one per cent.

The above figures, while taken from the larger and better known clinics, or from men who have had a deep interest in thyroid surgery for a number of years, still serve to emphasize the first statement in this article i. e:

Thyroid surgery has advanced from one of the most hazardous to one of the most satisfactory and safest types of surgery.

I am indebted to the following doctors for their mortality figures: Lahey, Reinhoff, King, Cole, Chesky, Yung, Lockwood, Abell, Jackson, DeCourcy, Crile and Hunt.

### CONCLUSIONS

1. Thyroid surgery has advanced from one of the most hazardous to one of the most satisfactory and safest major surgical procedures.

2. Requirements for safe thyroid surgery have been well standardized.

3. In no other field of surgery is a greater variety of skill and experience needed to obtain a good result and a low mortality.

4. The conventional method of preoperative preparation seems to have stood the test of time in a most satisfactory manner.

5. One essential step in doing a thyroidectomy is to enter the proper plane of surgical cleavage.

6. It is the author's opinion that local anesthesia is the anaesthetic of choice.

7. The patient should be in condition to withstand a total thyroidectomy before any surgery is started, although lobectomies at times save lives.

8. Good, sound and mature clinical judgment cannot be replaced even in a minor way by laboratory tests.

9. The complications that may follow thyroidectomy have been listed and discussed.

10. Statistics presented serve to emphasize the first conclusion.

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## PIONEER DOCTORS OF ARKANSAS \*

MRS. J. G. GLADDEN  
Harrison

### BOONE COUNTY

Dr. Leonidas Kirby was born in Green County, Missouri, December 1, 1850, and died August 20, 1926, at the age of 75. He was the eldest son of Benjamin and Serena (Bender) Kirby. His grandfather, B. F. Tully, had a natural taste for practicing and often cared for the sick in his neighborhood without charges. He did not study medicine until after his marriage, studying with his wife's father, Dr. Samuel Bender, and in 1854 graduated from the old McDowell College of Medicine in St. Louis.

Dr. Leonidas Kirby spent his boyhood days on a farm and following his common school education attended St. Louis Medical College where he graduated in 1876. This college later merged with the Missouri Medical College forming the Washington University Medical School and from this institution his sons, F. B., H. H., and A. C., were graduated and his other son, Lee B., received his professional training and was a well-loved druggist of Harrison for many years. His grandsons, E. L. Evans and Henry V., also graduated from Washington University and Dr. Henry Kirby is now practicing in Harrison. Ben Kirby, another grandson, graduated in medicine from the Arkansas University.

Dr. Leonidas Kirby was married in Harrison to Rhoda Virginia Crump of Virginia. To this couple were born Royal, who died in infancy, Nora, Frank B., Leonidas, Leander, Bender, Hodgen Henry and A. Crump.

Dr. Kirby was president of the Boone County Medical Society in 1882 and of the Arkansas Medical Society in 1904. He was Grand Master of the Masonic Lodge of Arkansas in 1921-22. He was a Knight Templar, 32nd degree Mason, and held at various times all offices in the State Commandery. He was a charter member of the Christian Church.

Dr. Kirby came to Harrison in 1871 and engaged in the drug business. He knew pharmacy but had never practiced as a physician. In the winter of 1871-82 there was an epidemic of diphtheria in Boone County and, as there were not enough physicians to attend all the sick, he helped. In 1875 he went to St. Louis and took a course in medicine and in 1879 took a full session post-graduate course, later taking

short courses. During his 55 years of practice, he seldom wrote a prescription, compounding his own medicines from his stock of drugs, often from rows and rows of vials in his saddle bags or satchels. In fact the doctor's little black satchel, swung from a strap over one shoulder, seemed almost a part of him and children used to say as he passed on a call, "Dr. Kirby is taking someone else a baby."

Inspiration for the poem, "The Country Doctor," by Walt Mason, Kansas poet, was Dr. Leonidas Kirby. Old-timers say that Dr. Kirby when young, never walked but ran and that he considered gates for other people, jumping fences when gates were already open in welcome.

Dr. Kirby was the son and grandson of doctors and had two uncles in the profession. He married the sister of a doctor. His only daughter married a doctor and his druggist son married a doctor's daughter.

Other physicians of early days were:

#### ABNEY

Fount Allbright	M. M. Birge
William Bradford	Jas. T. Bell
W. T. Bains	Orval Barker

#### BRAND

W. R. Crumpler	Clyde Calen
	Crebb

#### ELUM

D. E. Evans	Garrett Green
George K. Edmonds	Gatewood
J. C. Floyd	Hutchinson
Alfred Finch	Hart
Carl Finch	Albert Hamilton
Sam Greer, Sr.	H. E. Hamilton
Sam Greer, Jr.	Charles Holt
J. M. Gipson	Gibson Keele
T. M. Gibson	W. A. Langston

#### LAIR

John P. Lowery	George Ruble
J. Martin	Charles Ruth, Sr.
W. C. Maxey	Charles Ruth, Jr.
Ras McAlister	Hugh L. Routh
B. H. Nichols	James Stephens
James Owen	Louis C. Tyson
James Pollard	T. O. Woodmore
Albert Pollard	Garland Watkins
Jim Potts	A. J. Waters
Edmond Pratt	Onus York

Dr. Prior L. Richardson was born in 1838 in Tennessee and died in the Old Confederate Soldier's Home in Little Rock in the spring of 1916 at the age of 80. He had served as a lieutenant in the Confederate Army and after the

\* Submitted by the Biography Committee, Woman's Auxiliary to the Arkansas Medical Society, Mrs. Chas. W. Dixon, Gould; Mrs. C. W. Garrison, Little Rock.



war studied medicine in Little Rock. He later practiced in Boone and surrounding counties from 1876 to 1884. He married Josephine Milligan in 1854. In 1884 he moved with his family to Wilbarger County, Texas, where he continued his practice and in 1902 returned to Western Grove. He was a charter member of the Masonic Lodge there, and a member of the Christian Church from his youth.

Dr. John Lester Simms was born near Batavia, in Boone County, Arkansas. He graduated in St. Louis in 1880 and was married to Mary Fannie Roberts in Missouri. He practiced medicine in Harrison and died at the age of 83.

Dr. James M. Robinson was born in Marion County, Alabama, October 16, 1823, son of Samuel and Elizabeth (Evans) Robinson. He was the fourth of eight children. Dr. Robinson was a member of the Presbyterian Church and the Bellefonte, Arkansas, Lodge A. F. and A. M.

He attended Memphis Medical College and did his first practicing in Mississippi. In 1859 he came to Arkansas and located in Hempstead County but in 1867 became a resident of Boone County and an active practitioner of Bellefonte. He was the father of Elizabeth, Mary, John W., David T., William M., Henry, Llewellyn, Sarah J., Edward L. and Columbus B. Robinson.

Dr. Bascom James Vance was born June 15, 1853, at Rally Hill, Boone County, Arkansas, and died July 25, 1922, at Checotah, Oklahoma. He was a graduate of Vanderbilt University with the class of 1889 in Nashville, Tennessee, and practiced at Lead Hill and Harrison, Arkansas, until he opened an office in Checotah in 1902. He was a member of the Methodist Church, Masonic Lodge and president of the Medical Society. He was united in marriage to Fannie Belle Marshall at Bellefonte, Arkansas, August 1874, and to this union were born ten children, two dying in infancy. The remaining children are Mrs. Walter Hensley, Tahlequah, Oklahoma; Mrs. Lee Kirby, Harrison, Arkansas; Mrs. T. P. Reed, Austin, Texas; Jessie of Muskogee, Oklahoma; Mrs. Hugh Gladden, Miami, Florida; Mrs. Waldo E. McIntosh of Tulsa, Oklahoma.

Dr. Asbury Johnson Vance was born May 1, 1856, at Rally Hill, Arkansas, and practiced medicine until his death April 28, 1912. His practicing was done in Harrison, Arkansas, after his graduation from Vanderbilt University, Nashville, Tennessee. He was a member of the Masonic Lodge and a leader in the Methodist Church. He was married to Lula Green Lee Crump. His father, Dr. John Rogers Vance, was also a doctor and practiced at Rally Hill. His death occurred in 1865 at the age of 49.

Dr. John G. Hale was born in Tennessee, September 10, 1848. He was the son of Thomas and Fannie (Wellborn) Hale who moved to Texas in 1849. Dr. Hale was educated in McKenzie College and in 1876 took up the study of medicine, graduating from Jefferson Medical College at Philadelphia, later taking a post-graduate course in the same institution. Before attending Jefferson, he studied under Dr. Hickerson at Springfield, Missouri. His first practice was in Valley Spring, Arkansas, and although he was a general practitioner, his specialty was throat and ear. The doctor was a resident of Boone County from 1869 and was married to Judith R. Fullbright. Mrs. Hale's mother was the first white child born in Green County, Missouri, her birth date being April 23, 1831. She was the daughter of Joseph Weaver. To Dr. and Mrs. Hale were born five children, Fannie E., Dan Abbott, Wilburn W., Helen and Judith G. Dr. Hale was a member of the Knights of Pythias Lodge No. 213, Springfield, Missouri, where the family lived from 1887 until 1891. In addition to his practice, he gave considerable time and attention to farming and livestock.

## SEBASTIAN COUNTY

MRS. D. W. GOLDSTEIN  
Ft. Smith

The first Medical Society in Arkansas was formed by Dr. James A. Dibrell and the Army surgeons at Ft. Smith about 1845. Dr. Joseph H. Bailey was the first Post Surgeon at Fort Smith, having come here in 1838. Dr. Bailey was born in New York in 1803 and spent the greater part of his life in military service. He married Mary Reed, November 4, 1840. They had 12 children. He died in 1882. His son, Dr. W. W. Bailey, married Lelia Main, daughter of Dr. J. H. T. Main.

Dr. J. H. T. Main was the first physician to open a general practice in Fort Smith. He came to Fort Smith in 1838 and attended the birth of the first child born in Fort Smith. Dr. Main was born in Hagerstown, Maryland, November 13, 1813. He studied medicine at Stallings College, Columbus, Ohio. In May, 1846, he was married to Isabella D'Armourer. Dr. Elias Rector DuVal, born in August 1836, was one of the first white children born in Fort Smith. His father, William DuVal, and other members of the family, came here from Virginia. His mother was the daughter of the famous Dr. Dodridge of Philadelphia. Dr. DuVal was educated at the University of Arkansas, then went to the University in Philadelphia for his medical



education. Later he was at Bellevue Hospital in New York for post-graduate work and there was offered the Superintendency of the Hospital. He married Medora Dibrell, eldest daughter of Dr. Jas. A. Dibrell, of Van Buren. They had two daughters and two sons—one son, Ben T. DuVal, and two grandsons, Dibrell and John DuVal, are still living in Fort Smith. Dr. DuVal was a loved and distinguished physician. During the Civil War he served the South as Assistant Medical Director of the Trans-Mississippi Medical Department of the Confederate Army and was stationed at Marshall, Texas, from 1862 to 1865. He was the first President of the School Board of the Fort Smith Schools and DuVal school is named in his honor.

He died at the age of 49. There is today a cross and pair of vases on the Altar of St. Johns Episcopal Church placed in his memory by the Sebastian County Medical Society. The Masons, of which he was a distinguished member, erected a monument over his grave in Oak cemetery.

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## THE RESPONSIBILITY OF THE PRACTICING PHYSICIAN FOR DIABETES DETECTION

The discovery and treatment of diabetes mellitus at an early stage demands the attention of all practicing physicians. Failure to discover and treat diabetes early results in preventable disabilities and impairments of health. In the Diabetes Exhibit at the Annual Meeting of the American Medical Association held in Chicago in June, 1948, it was shown that the mortality rate for diabetics first seen when a complication had occurred was three times the rate for diabetics first seen earlier and before impairments had developed. Actually the future for the diabetic patient under modern medical treatment is brighter and more hopeful today than ever before.

District and state medical societies now have the opportunity to take the lead in the fight against diabetes in response to an appeal to the practicing physicians of the United States, presently being made by the Committee on Diabetes Detection of the American Diabetes Association. This committee was appointed by Dr. Charles H. Best, President, at the Annual Meeting in June, 1948. Plans are being formulated for National Diabetes Week, December 6 to 12, 1948.

As a first step in a full-scale attack on diabetes, eighth among the leading causes of

death, a medical society should appoint its committee on diabetes. The National Committee on Diabetes Detection stands ready to assist local committees in their work. Already the Committee is preparing material containing information on diabetes for use by the physician in his own town. These materials include programs for medical meetings, radio broadcasts and spot radio announcements for use by city and county medical societies, and suggestions for cooperation with local hospitals toward the control of diabetes.

Now is the time for action—will the practicing physicians seize this opportunity for progress in an all-important field or will he prefer to surrender to others his responsibility for diabetes detection and treatment?

Committee on Diabetes Detection,  
Howard F. Root, Chairman,  
81 Bay State Road,  
Boston, Massachusetts.

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## MEDICAL SCHOOL YEARBOOK

Dear Doctor:

We, the students of the University of Arkansas School of Medicine, are planning to publish a yearbook for the school year 1948-1949. The last year that such a project was attempted was in 1941. Our chief obstacle in producing the book this year is a financial one, due, primarily, to the rising cost of equipment and materials.

To meet this situation, we have decided to enlist the aid of the interested doctors throughout the state. It is our hope that their contributions, in addition to our advertising revenue and the money from the sale of the books to students and faculty, will insure us of an outstanding publication, one that will serve as an example for each succeeding yearbook staff.

We realize that a good many doctors will not be interested in the yearbook, or will feel that they are not in a position to contribute to its production. However, we feel sure that you will be interested enough to contribute up to \$10.00 or more, if you feel like it, to our fund.

We would appreciate an early answer in order that we may be able to determine our operating budget. Checks should be made payable to the Medical School Yearbook Fund.

Thanking you in advance, I remain

Sincerely yours,

Harry Whittaker, Jr.,  
Yearbook Business Mgr.,  
University of Arkansas  
School of Medicine.



## THE JOURNAL OF THE ARKANSAS MEDICAL SOCIETY

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## EDITORIAL

### BLUE CROSS-BLUE SHIELD FOR ARKANSAS

By joint action of the House of Delegates of the Arkansas Medical Society and the Arkansas Hospital Association, approval was given to the plans of the Joint Committee to inaugurate a Blue Cross-Blue Shield voluntary prepayment program in Arkansas. Approval has been withdrawn from the former commercial plan program which has been in effect for over a year and the committee will proceed to establish, at the earliest practicable date, the widely-known and accepted program of the Blue Cross and Blue Shield type. Full aid and assistance will be made available to the committee from the national headquarters of these plans and it is hoped that contracts will be available to the public within a short period. The opinion of the members in attendance at the House of Delegates session October 10th strongly supported the recommendations of the committee and the approval vote was unanimous. Details of the plan will be made known to the membership as they develop. There will be need for sincere sympathetic support from the profession, an understanding co-operation, if the plan is to succeed in Arkansas.

### HONORING MEMBERS IN PRACTICE FIFTY YEARS

Attention of the membership is again called to plans for a special ceremony to honor those members of the Society who have been in practice for fifty years at the 1949 annual session of the Society. It is important that the names of such members reach the office of the Executive Secretary in the immediate future in order that plans for the ceremony may be completed. Nominations of such members may come direct from the members or from their county medical societies and may include the names of those physicians who will complete fifty years of practice prior to the annual session in 1948 but who have not, at this time, completed this term of active practice. It is sincerely hoped that no member deserving this honor is overlooked in the plans.

### RANDOM THOUGHTS OF THE SECRETARY

September 15. With the scientific session throughout the day and aboard a comfortable Pullman (influenced perhaps by the Railroad Fair) and away to the homeland.

September 25th. On this Indian summer afternoon watching the Razorbacks, finding no colleagues in the crowd but Frank Parke, of the Democrat P. & L., certainly an associate after these years of sharing the conflicts of the medical profession, appears at the half-time club house for short greetings and banter.

October 3rd. Meeting with cancer clinic directors and secretaries today and disturbed over the financial insecurity which some radiologists face.

October 9th. The Baylor Bears have what it takes to take the Razorbacks this afternoon, their deadly passing attack reminding us of days of yore when Arkansas was the "passingest team."

October 10th. To the House of Delegates today which is attended by prepayment plan dignitaries but by few delegates, notably those known to differ in opinions, but the start is made, at long last, on a successful voluntary prepayment plan in Arkansas, requiring now naught but the cordial support of the medical profession and of hospital administrators.

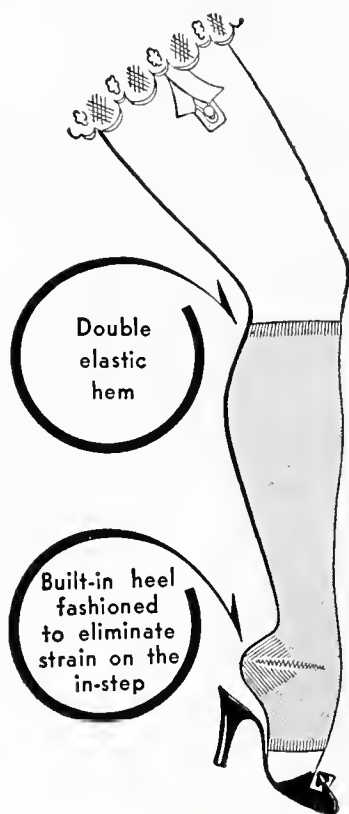
Sick children present a two-fold problem in respect to growth and maintenance of body tissue: (1) repair of the damage wrought by disease, and (2) provision of the nitrogen needed for the growth processes, which persist in their demands during periods of illness. Hence, the physician may wish to prescribe large amounts of protein. Protenum is a highly palatable high protein food—low in fat. In the form of a beverage or in various recipes, Protenum will increase the protein intake without adding appreciable bulk to the diet.

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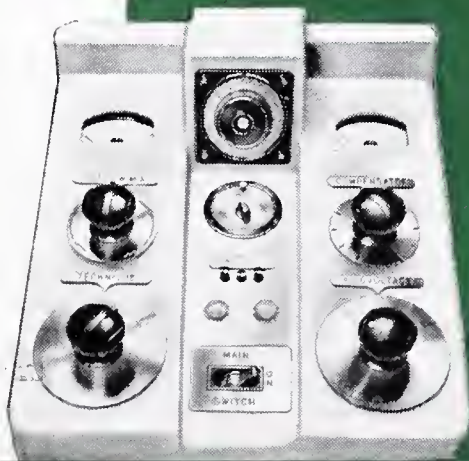


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# TUBERCULOSIS ABSTRACTS

## *A Review for Physicians*

ISSUED MONTHLY BY THE NATIONAL TUBERCULOSIS ASSOCIATION

### X-RAY PROGRAMS IN GENERAL HOSPITALS

THE LAG between knowledge and practice is nowhere better illustrated than in the slowness with which general hospitals have instituted the routine chest X-ray examination of all patients at the time of admission. Yet everyone benefits when this is done—the patient, the professional staff, the hospital employees and the community.

Hospitals should institute X-ray examinations of all admissions. The hospital can render this health service, which is essential for the protection of the public health, better than any other agency.

Chest X-ray surveys can be conducted in hospitals much more easily, economically, and quickly than in other groups. Hospitals also offer ideal opportunities for intensive case-finding. Most of the entering patients are free from tuberculosis, but some will have tuberculosis in its earliest stages and a few previously underdiagnosed advanced cases will be found.

In 1946, more than 15,000,000 people—more than 10 per cent of the total population—spent some time as patients in hospitals. This means that a new hospital patient was admitted every two seconds. In the same year nearly 2,000,000 new citizens were born in the 7,000 hospitals of this country. Millions more are treated as outpatients in the clinics. Each patient admitted should have the benefit of a chest X-ray.

Tuberculosis is often considered a disease of youth. Contrary to this opinion, however, mortality figures in the United States show the highest death rate from tuberculosis occurring in the 70-year age group. Too few persons—even among those engaged in tuberculosis control—recognize the fact that the phenomenal decrease in the death rate among younger persons has not been accompanied by a similar decline among the aged. Yet the trend in the death rate from tuberculosis increases with each five-year age group from 15 to 75. Tuberculosis among the elderly is frequently masked by the infirmities of age. It is often difficult to interest elderly people in a physical examination. These same elderly people, however, make up a large proportion of admissions to general hospitals. Here is the opportunity to begin work

on the difficult and enormous problem of finding tuberculosis among the elderly.

A general hospital has three compelling reasons for taking X-rays of all patients and personnel. First, to serve its community as a case-finding center. Second, to protect its employees from the spread of tuberculosis infection by patients. Third, to protect the patients from contracting tuberculosis infection from other patients or from the personnel.

Whenever a patient with unrecognized open tuberculosis is admitted to a hospital he becomes a menace to some of the personnel in the institution. This hazard can be avoided only by routine chest X-ray examinations made on admission. Otherwise proper precautions against contagion cannot be taken.

Nurses entering training should and do have careful physical examinations and chest X-rays to assure that they are free of tuberculosis. During training, however, many contract infection from hospital patients. The only preventive for this tragic accident is admission X-raying of every patient.

With a thorough case-finding procedure among personnel and routine X-raying of all admissions there is less danger of tuberculosis infection being spread in the hospital. The danger arises within the hospital, not from accepting tuberculous patients, but from hospitalizing them with their tuberculosis unrecognized. This has been, and still is, the practice in many hospitals. When patients are known to be tuberculous, most of the acute danger of contagion can be avoided. Admission X-rays usually tell us who these patients are so that adequate isolation can be provided.

Hospital admission X-rays are a public benefit. By this means, the disease can be discovered in a population group which cannot otherwise be



## PROCEEDINGS OF SPECIAL SESSION, HOUSE OF DELEGATES OF THE ARKANSAS MEDICAL SOCIETY

Continental Room of the Marion Hotel, Little Rock,  
Sunday, October 10, 1948

The meeting was called to order at 10:30 a. m. by President Lutterloh.

The following delegates and county society members seated as delegates (motion, Rhinehart-H. T. Smith) were present:

ARKANSAS—S. A. Drennen; CRAIGHEAD—POINSETT—J. H. McCurry, Joe Vesser; CROSS—A. F. Barr; DESHA—H. T. Smith; DREW—C. Lewis Hyatt; FAULKNER—Ed Dunaway; JOHNSON—Guy Shrigley; LAFAYETTE—B. M. Gardner; LOGAN—I. H. Jewell; MILLER—Harry E. Murry; MONROE—E. D. McKnight; PHILLIPS—J. B. Terry; PRAIRIE—J. C. Gilliam; PULASKI—Hoyt R. Allen, Henry G. Hollenberg, Charles R. Henry; ST. FRANCIS—J. M. Roy; SEBASTIAN—A. F. Hoge, D. W. Goldstein; UNION—H. J. Mayfield; WASHINGTON—Fount Richardson; WHITE—H. R. Edwards; WOODRUFF—C. E. Dungan.

Other members of the House of Delegates present were:

President Lutterloh, President-Elect Euclid M. Smith, Vice-President Charles R. Henry; Councilors J. H. Wilson, L. H. McDaniel, S. A. Dren-

screened by general or industrial X-ray surveys—the mother, the housewife, the maid, the self-employed and, as pointed out before, the aged. Of the fifteen million persons entering general hospitals in 1946, two million were obstetrical patients. Women of child-bearing age have a high tuberculosis mortality and often are not included in mass X-ray examinations.

Early and accurate diagnosis of chest conditions is always an aid to the physician. Even if disease is not discovered, it guards against the dangers of incomplete diagnosis.

The program of hospital admission X-rays is approved by the American College of Radiology as a screening device; in no way does it supplant regular X-ray examinations. Chest X-rays give impetus to accurate diagnosis by the staff, interns, and house staffs and complete the hospital records of the patients admitted. The X-ray makes a graphic addition to the record; in subsequent illness it may be consulted by the family physician if he suspects aggravation of a previously existing lesion.

What We Expect from X-ray Programs in General Hospitals, F. M. Meixner, M.D., National Tuberculosis Association Transactions, 1947.

nen, R. C. Dickinson, L. G. Martin, Ellery Gay and D. L. Owens; Past-Presidents Sam J. Albright, M. L. Norwood, D. A. Rhinehart, J. F. Shuffield, H. Fay H. Jones, R. B. Robins and H. T. Smith; and Secretary W. R. Brooksher.

President Lutterloh introduced Ellery C. Gay, chairman of the Joint Committee on the Arkansas Hospital Association and the Arkansas Medical Society, who introduced members of the Arkansas Hospital Association who were present.

Chairman Gay introduced the representative Blue Cross-Blue Shield commission of three, headed by Dr. Paul R. Hawley, Chief Executive Officer Blue Cross-Blue Shield Commissions, who spoke on "The Changing Economic Pattern of Health Care" and stressed the need of increasing non-profit plans within states in order to combat governmental intervention in the field.

Members of the Arkansas Hospital Association were then adjourned to another room and the House of Delegates continued its session.

Chairman Gay introduced Charles R. Henry, subcommittee chairman, who outlined the proposed Blue Cross-Blue Shield plan for the State, including the proposed costs to subscribers of the plan.

Chairman Gay stated that an indemnity schedule for Arkansas physicians under the Blue Shield plan was now in process of formulation. To be activated in Arkansas, the Blue Cross-Blue Shield will require a state fund of \$25,000, he stated. The Farm Bureau will underwrite \$5,000, the Arkansas Hospital Association, \$10,000.

The Joint Committee presented the following resolution:

"Be it resolved that the House of Delegates of the Arkansas Medical Society accepts the report of the Joint Committee of the Arkansas Medical Society and the Arkansas Hospital Association, and

"Be it resolved that the House of Delegates of the Arkansas Medical Society pledges its support to the establishment and development of a non-profit Blue Cross-Blue Shield program and that it hereby directs and empowers its representatives on the Joint Committee to take such action as may be necessary to accomplish the objectives of the program, and

"Be it further resolved that in as much as the sum of \$25,000 is required for the establishment of the program, the House of Delegates instructs the Secretary of the Arkansas Medical Society to advance to the Joint Committee as its apportionment \$10,000 as a non-interest bearing loan to be repaid to the Society when suf-



ficient reserves have accumulated to the Arkansas Blue Cross-Blue Shield Plan."

By motion (Gay-Lutterloh) the resolution was adopted.

President Lutterloh asked for general discussion among the delegates.

D. W. Goldstein stated that the Sebastian County Medical Society was favorable toward immediate adoption of the Blue Cross plan in Arkansas, but thought that the Blue Shield Plan adoption should be decided upon at a later date.

Fount Richardson reminded delegates to consider the American Medical Association's Council on Medical Service statement of October 2 relative to its concern over the proposed formation by Blue Cross-Blue Shield of an insurance company before making an immediate decision.

President Lutterloh expressed the Society's indebtedness to the Joint Committee for its work in formulating the proposed Blue Cross-Blue Shield Plan for Arkansas, urging the Society's support at the present.

Harry E. Murry questioned Dr. Hawley about the October 2 statement by the AMA Council on Medical Service.

Dr. Hawley explained that said statement need not deter local acceptance of a Blue Cross-Blue Shield Plan, that the proposed formation by Blue Cross-Blue Shield of an insurance company was to be debated at the Blue Cross-Blue Shield Annual Conference at French Lick, Indiana, on October 25 through October 28.

S. A. Drennen questioned the advisability of immediate acceptance of the plan by the Arkansas Medical Society.

J. M. Roy stated that many St. Francis counties are aware of the Blue Cross-Blue Shield plan in Tennessee, have witnessed its success in that state, and have expressed hope of such a plan in Arkansas.

H. J. Mayfield questioned about Blue Shield schedules for physicians in other states, said that his county society withheld the full plan to be presented to them before final action.

Chairman Gay explained that present investigation by the Joint Committee revealed that approximately three-fourths of the surgical fee would be covered in the proposed Blue Shield indemnity schedule.

A. F. Hoge stated that the Sebastian County Medical Society requested a full report on proposed plan before he would be authorized to approve the plan presented to the House of Delegates by the Joint Committee.

Chairman Gay explained that the House of

Delegates had given the Joint Committee authority to approve a plan in the best interest of the Arkansas Medical Society and therefore the Committee's decision was in behalf of the Arkansas Medical Society.

J. C. Gilliam questioned the loss to Prairie County, which has no hospitals, under the Blue Cross plan.

Chairman Gay stated that under Blue Cross there are no benefits to the individual physician.

D. W. Goldstein offered an amendment (seconded by Drennen) to Chairman Gay's motion of Blue Cross-Blue Shield acceptance in Arkansas that the report should be taken to the county medical societies for complete discussion in order that each Arkansas physician might be informed correctly about the plan before final decision.

Joe Verser advocated immediate passing of the proposed plan because of expiration of the John Marshall plan which would discourage enrollment in a new plan were six months to elapse before final action.

R. C. Dickinson indicated that the Blue Cross-Blue Shield Plan had been thoroughly discussed among county societies two years previously and therefore would require little explanation among these societies at the present.

John H. Wilson stated that people in Columbia County were already prepared to accept the Blue Cross-Blue Shield Plan.

C. E. Dungan proposed immediate action with suitable publicity about the proposed plan so that the people of Arkansas may be properly informed.

Hoyt R. Allen advocated immediate action.

D. A. Rhinehart expressed the disadvantage involved by the Society's not accepting both Blue Cross and Blue Shield, as one reinforces the other.

C. Lewis Hyatt urged further discussion in favor of immediate action of accepting Blue Cross-Blue Shield Plan in Arkansas.

Fount Richardson called on Mr. Waldo Frazer of the Arkansas Farm Bureau Association to express views.

Mr. Frazer stated that farmers desire Blue Cross immediately because of present expiring John Marshall policies, that farmers desire an all-inclusive Blue Cross-Blue Shield Plan in Arkansas with benefits for both farmers and physicians. By vote, Dr. Goldstein's amendment failed to carry.

By motion (Gay-Lutterloh) the resolution of the Joint Committee was adopted.

Jos. F. Shuffield suggested the appointment



## THE USE OF STREPTOMYCIN IN TUBERCULOSIS

A Report by the Committee on Chemotherapy and Antibiotics of the American College of Chest Physicians

September 23, 1948

The Committee on Chemotherapy and Antibiotics of the American College of Chest Physicians submits the following report of the use of streptomycin in tuberculosis.

**Indications for Treatment:** Nearly all forms of tuberculosis respond to treatment with streptomycin in some degree. However, the drug should by no means be used indiscriminately.

**Pulmonary Tuberculosis:** It is extremely difficult to lay down hard and fast rules for the use of streptomycin in pulmonary tuberculosis. Especial care in the selection of cases is necessary. The drug has its greatest usefulness in cases with an appreciable amount of exudative disease. In some other cases streptomycin is responsible for symptomatic improvement and the prevention of complications.

1. **Definite treatment:** This category includes chiefly progressive lesions of recent origin with little or no destruction of tissue, such as progressive primary tuberculosis and tuberculosis due to hematogenic and bronchiogenic dissemination.

2. **Preparation for surgical procedures,** including temporary and permanent collapse and excisional surgery. In some cases pneumothorax can be instituted sooner and with greater safety after a course of streptomycin. Not infrequently the drug is of great value in preparing patients as candidates for thoracoplasty. As prophylaxis,

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of a committee to direct the education campaign among county medical societies.

Chairman Gay stated that such a committee was to be appointed in the near future.

By motion (Hoge-Goldstein) a vote of thanks was extended to the Joint Committee for its excellent work.

President Lutterloh appealed to the delegates and the Arkansas Medical Society as a whole to put aside "petty jealousies" in the inauguration of the new Blue Cross-Blue Shield Plan in Arkansas so as to assure its success through complete cooperation among the county medical societies.

By motion (Rhinehart-H. T. Smith) county medical society members seated as delegates were recognized by action of the House of Delegates.

streptomycin should be used routinely in excisional procedures.

It must be emphasized again and again that streptomycin is **not** a substitute for sanatorium care and other proven procedures. Rather it is a valuable adjunct to these other measures.

**Extrapulmonary Tuberculosis:** Streptomycin is the only treatment available in miliary tuberculosis and tuberculous meningitis. In such cases early and intensive treatment is imperative. Streptomycin is the treatment of choice for tuberculous sinuses, tuberculosis of the oropharynx, larynx and tracheobronchial tree, tuberculous enteritis and peritonitis, tuberculous otitis media, and tuberculous pericarditis. In renal tuberculosis, symptomatic improvement is usually prolonged and bacterial conversion occurs in some cases. Tuberculosis of the bones and joints is often improved by streptomycin but chemotherapy is not a substitute for orthopedic surgery when this is indicated.

Streptomycin is valuable as pre-operative and post-operative treatment of tuberculosis in surgery of the genito-urinary tract, surgery of bones and joints, pericardiectomy, incision and drainage of abscesses and fistulectomy.

**Administration:** Streptomycin is administered by intramuscular or deep subcutaneous injection. The optimal regimen for the administration of Streptomycin has not been determined. In most forms of tuberculosis results appear to be satisfactory when a dose of .5 to 1 gram a day are administered in one or two injections for six to eight weeks. With this mode of therapy complications are very infrequent and in most cases their clinical importance may be discounted. In tuberculous meningitis and miliary tuberculosis treatment should be vigorous; a dose as high as two grams per day for four months, or longer if necessary. In tuberculous meningitis results seemingly are better when intramuscular injection is supplemented by intrathecal injection of from 25 to 50 milligrams every twenty-four to forty-eight hours for two or three months, or as long as this method of administration is tolerated by the patient.

Since drug fastness is apparently closely related to duration of treatment, regardless of the daily dosage, limitation of the period to a few weeks may be effective in avoiding this phenomenon in many cases.

The physician handling a case of tuberculosis would do well to ask himself the following questions before administering streptomycin.

1. Why is streptomycin being used: for defi-



nitive therapy, as preparation for surgery, for prophylaxis, or for relief of distressing symptoms?

2. Is the type of lesion present of such a nature as to warrant the use of streptomycin in addition to other available therapy?

3. Can the purpose of chemotherapy be accomplished within the relatively short period of the drug's effectiveness? (Almost three-fourths of the patients show resistant organisms after three to four months of continuous daily streptomycin treatment.)

#### **Other Chemical and Antibiotic Substances.**

There is no other substance known today which compares with streptomycin in its effectiveness against tuberculosis. The sulfones, promin and promizole, are generally ineffective alone. Experimental work is in process to determine whether or not there is synergistic action when any of these are added to streptomycin. Para-aminosalicylic acid is promising on the basis of laboratory experimentation but sufficient clinical work has not yet been done to permit evaluation of this drug. Subtilin has not had sufficient clinical trial and there is not yet enough animal experimentation to indicate its usefulness. Of the many other antibiotic substances, none has shown in preliminary experimentation indication of real value against tuberculosis and none has had clinical trial.

Submitted for the Committee on the Management and Treatment of Diseases of the Chest by the Sub-Committee on Chemotherapy and Antibiotics.

#### **Committee on Chemotherapy and Antibiotics**

Karl H. Pfuetze, M.D., Cannon Falls, Minnesota, Chairman.

B. L. Freedlander, M.D., San Francisco, California, Vice-Chairman.

Sumner S. Cohen, M.D., Oak Terrace, Minnesota, Secretary.

Manuel Albertal, M.D., Buenos Aires, Argentina.

Arnold Shamaskin, M.D., Hines, Illinois.

Henry C. Sweany, M.D., Chicago, Illinois.

Carl W. Tempel, Col., MC, Denver, Colorado.

John V. Thompson, M.D., Indianapolis, Indiana.

#### **Committee on the Management and Treatment of Diseases of the Chest**

Edwin R. Levine, M.D., Chicago, Illinois, Chairman.

## **PERSONALS AND NEWS ITEMS**

T. P. Foltz, Fort Smith, addressed the Frisco System Medical Association at Springfield, Missouri, October 7th on "Recent Trends in Gastric Surgery."

I. F. Jones, Fort Smith, and Eva F. Dodge, and E. L. Ellison, Little Rock, attended the September session of the Central Association of Obstetricians and Gynecologists in Denver.

The Arkansas Association of Medical Records Librarians was addressed at Little Rock recently by Ellery C. Gay, "The Importance of Medical Records to the Doctor, Hospital and Patient," and S. T. W. Cull, "Terminology."

R. B. Robins, Camden, Speaker, House of Delegates, American Academy of General Practice, addressed the Florida chapter meeting of that organization at Miami October 24th.

Dr. and Mrs. Chas. T. Chamberlain, Fort Smith, spent a recent vacation in Mississippi.

Dr. and Mrs. Ben H. Pride, Fort Smith, spent a recent vacation in California.

Stanley M. Gates, Little Rock, attended the post-graduate course of the American College of Chest Physicians in Chicago during September.

"Newer Repository Penicillin Products" by D. K. Kitchen, New York, formerly of El Dorado, in collaboration with others, appeared in a recent issue of The Journal of the American Medical Association.

Euclid M. Smith, Hot Springs National Park, addressed the Oklahoma Regional Meeting of the American College of Physicians at Tulsa September 25th on "The Role of the Health Resort in the Treatment of Arthritis."

"Treatment of Cervical Cancer in Local Tumor Clinics" by William B. Harrell, and E. T. Ellison, Texarkana, appeared in the October, 1948, issue of the Southern Medical Journal.

G. D. Murphy, Jr., El Dorado, and H. M. Armstrong, Little Rock, have been appointed chairman and vice-chairman, respectively, of the American Legion, Department of Arkansas. L. J. Kosminsky, Texarkana, has been appointed medical adviser, and L. H. McDaniel, Tyrone, has





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# SEARLE

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been appointed a member of the Americanism committee.

Pearl Waddell, Fort Smith, spent a recent vacation in Georgia.

John W. Unruh, who was on the staff of the Veterans Hospital, North Little Rock, following release from naval service, is now associated with John William Smith, in the practice of ear, nose and throat at 1415 West Sixth Street, Little Rock.

A. S. Koenig, Fort Smith, attended the recent meeting of the American Society of Clinical Pathologists in Chicago.

"Duodenal Diverticulæ" by J. G. Conti, Los Angeles; Thos. P. Foltz, Fort Smith, and G. Arnold Stevens, Los Angeles, appeared in the October 9th issue of The Journal of the American Medical Association.

## PROCEEDINGS OF SOCIETIES

There will be a post-graduate course in pediatrics given by the Pediatric Department of the University of Arkansas School of Medicine under the direction of Dr. Wm. A. Reilly, Professor of Pediatrics. The Maternal and Child Health Division of the Arkansas State Board of Health and the Arkansas Medical Society will sponsor. This course will be held from November 4, 1948 to November 6, 1948, at the Medical School, Little Rock, Arkansas. Various topics of practical interest will be discussed. Guest speakers will be: Dr. Waldo E. Nelson, Professor of Pediatrics, Temple University, Philadelphia, Pennsylvania and Dr. Arild E. Hansen, Professor of Pediatrics, University of Texas, Galveston, Texas.

The Fifth Councilor District Medical Society was addressed at a dinner meeting in Camden October 14th by Thos. A. Hendricks, Secretary, Council on Medical Service, American Medical Association, Chicago; and Euclid M. Smith, Hot Springs National Park.

The Southern Psychiatric Association will meet at the Adolphus Hotel, Dallas, December 6th and 7th.

E. F. Ellis, V. O. Lesh, Fayetteville, and Thos. P. Foltz, Fort Smith, attended the Frisco System Medical Association at Springfield, Missouri, October 7th and 8th.

## BOOK REVIEW

**Clinical Laboratory Methods and Diagnosis:** By R. B. H. Gradwohl, M.D., D.Sc., F.R.S.T.M. & H. (London), Director of the Gradwohl Laboratories and Gradwohl School of Laboratory Technique; Pathologist to Christian Hospital; Director, Research Laboratory, St. Louis Metropolitan Police Department, St. Louis, Mo., Commander, Medical Corps, United States Naval Reserve, Ret.; Fellow, American Public Health Association, and Dr. Pedro Kouri, Director, Institute of Tropical Medicine; Professor of Parasitology and Tropical Medicine; Vice-Dean of the Faculty of Medicine, Havana University; Director of Laboratories Kuba, Havana, Cuba. Fourth edition. Volumes I and II, 2284 pages with 691 illustrations and 51 color plates. Volume III, Parasitology and Tropical Medicine, 864 pages with 420 illustrations and 7 color plates. St. Louis, The C. V. Mosby Company, 1948.

With each edition of Clinical Laboratory Methods and Diagnosis there is a considerable growth in the size and number of volumes, the present one consisting of a three volume work which is more in the nature of an encyclopedia of clinical laboratory procedures. The first volume of 1295 pages deals with urinalysis, blood chemistry, hematology, blood grouping and transfusions, feces and miscellaneous examinations. Volume II is devoted principally to bacteriology and serology, with large sections on histopathologic technique, toxicology and electrocardiography. The index to volumes I and II is contained in the second volume. The third volume, jointly written by Drs. Gradwohl and Pedro Kouri, is devoted entirely to Parasitology and Tropical Medicine. It possesses its own separate index.

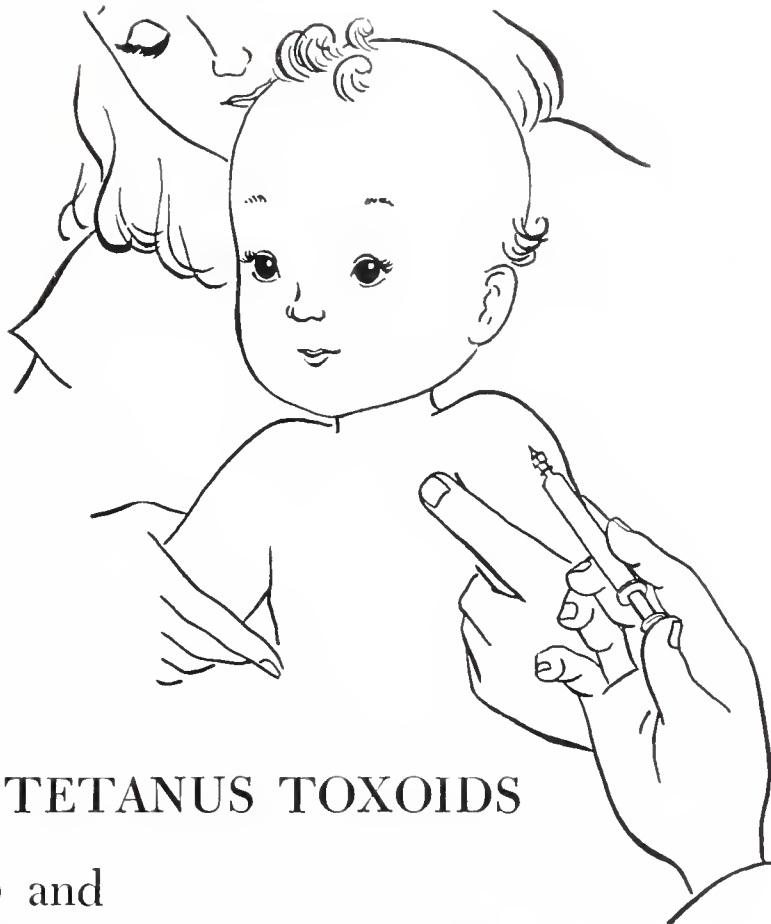
This three volume edition is not recommended for use by a student or clinical laboratory technician because of its encyclopedic proportions. The student and technician does not have the background or experience necessary to select the more desirable from the less desirable methods, all of which are given. In many places the text is verbose, giving much unnecessary information. To illustrate two instances: In the section on hematology there are five pages devoted to listing differential leucocyte counts which are supposed to occur in various diseases such as staphylococcic septicemia, ectopic pregnancy and other infections. In volume II, to illustrate the same point, there are sixteen pages devoted to charts and graphs illustrating the findings of the Evaluation Committee of the Washington Serological Conference held in Washington, D. C., in 1941. Such detailed information is ordinarily of no interest to the technician or student, and could easily be omitted.

There is considerable information given on the Rh factor with a lengthy discussion of the various nomenclatures proposed for this hereditary antigenic substance. On the whole the bibliography is good. There does not appear to be as great a number of typographical errors as had appeared in previous editions. As an encyclopedia, it should be included in the library of every pathologist because of the considerable volume of material it contains which usually cannot be found in other texts of clinical pathology.

**Dr. Colwell's Daily Log for Physicians.** Price \$6.50. Champaign, Illinois: Colwell Publishing Company, 1948.

We repeat our firm conviction that we do not see how an individual practitioner can keep business records more efficiently than with this book.





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## WOMAN'S AUXILIARY NEWS

The Southeast Arkansas Medical Auxiliary met in McGehee September 20th at the Delta Country Club at dinner with the doctors.

During the business session Mrs. L. K. Hundley of Pine Bluff, a guest and also State President-Elect, urged auxiliary members to pay poll tax on or before October 10th as there would be legislation affecting doctors.

A game of Bingo was enjoyed.

There were eighteen present including two guests. Besides Mrs. Hundley, Mrs. C. W. Anderson also of Pine Bluff, was there.

Mrs. Van C. Binns.

Sebastian County Medical Society Auxiliary voted to contribute \$10 to the Arkansas Medical Student Loan fund, to donate to the Erie Chambers Library fund (for the purchase of books for the state tuberculosis sanatorium at Booneville), and to renew its annual gift subscription to the official publication, "Hygeia," to local institutions and agencies, Thursday at the first meeting of the Auxiliary fall-winter season.

The subscriptions will go to the Young Women's Christian Association, Rosalie Tilles Children's Home, Carnegie Library, and the Booneville and Wildcat Tuberculosis Sanatoriums, the publicity chairman, Mrs. W. F. Rose, said.

Mrs. Marlin B. Hoge and Mrs. H. B. Thompson were enrolled as new members.

The new president, Mrs. Thomas Price Foltz, announced standing committee appointments as follows:

Membership, Mrs. Kenneth Thompson, chairman, Mrs. I. F. Jones, Mrs. Everett Moulton, Mrs. A. A. Blair, Mrs. W. R. Brooksher; program, Mrs. J. S. Southard, Mrs. Arthur Hoge, Mrs. Carl Wilson, Mrs. Walter Eberle, Mrs. Mabel Wood Scott; publicity, Mrs. W. F. Rose; public relations, Mrs. W. L. Shippey, Mrs. Ralph Kramer.

Hygeia, Mrs. John D. Olson, Mrs. Wright Hawkins, Mrs. S. J. Wolferman, Mrs. Eugene Stevenson, Mrs. B. L. Ware; legislation, Mrs. M. E. Foster, Mrs. Fred Krock, Mrs. D. W. Goldstein, Mrs. W. R. Brooksher, Mrs. S. P. McConnell; telephone, Mrs. John Ben Stewart, Mrs. V. N. Kennedy, Mrs. A. S. J. Clark, Mrs. H. C. Dorsey, Mrs. Ben Pride; physical health, Mrs. C. T. Chamberlain, Mrs. W. N. Woods, Mrs. S. P. Stubbs, Mrs. C. W. Hall; courtesy, Mrs. A. S. Koenig, Mrs. Art Martin, Mrs. F. E. Shearer, Mrs. Chas. Holt.

Officers besides Mrs. Foltz are Mrs. Kenneth

Thompson, vice president; Mrs. L. A. Whittaker, Jr., secretary; and Mrs. Ralph Crigler, treasurer.

The meeting was held at the Old South, in connection with a luncheon in the Magnolia room with Mrs. Whittaker and Mrs. Thompson as hostesses.

Present in addition to the new officers were the two members, Mrs. Hoge and Mrs. Thompson, and Mrs. A. A. Blair, Mrs. D. W. Goldstein, Mrs. Wright Hawkins, Mrs. Arthur Hoge, Mrs. Fred Krock, Mrs. Ralph Kramer, Mrs. Art Martin, Mrs. Ben Pride, Mrs. Eugene Stevenson, Mrs. S. P. Stubbs, Sr., Mrs. J. S. Southard, Mrs. W. L. Shippey, Mrs. J. B. Stewart, Mrs. B. L. Ware, Mrs. A. S. J. Clark and Mrs. W. F. Rose.

Mrs. W. F. Rose, Publicity Chairman,  
Sebastian County Medical Society  
Auxiliary.

## RESOLUTION

Whereas, the Great Physician has removed from his people and from his profession one of our outstanding members by an untimely death, we, the Washington County Medical Society mourn and deeply regret his passing, and Whereas, Dr. C. P. Sisco has for many years been one of the outstanding practitioners of his community and who has gained the love and respect of both his fellow practitioners and a host of friends and patients, all of whom share with us this sorrow; Therefore, Be it resolved, that the Washington County Medical Society expresses its sympathy to his family in this resolution and be it further resolved that a copy of this resolution be made a part of the minutes of this meeting and that a copy be forwarded to the Journal of the Arkansas Medical Society for publication.





# The JOURNAL OF THE ARKANSAS MEDICAL SOCIETY

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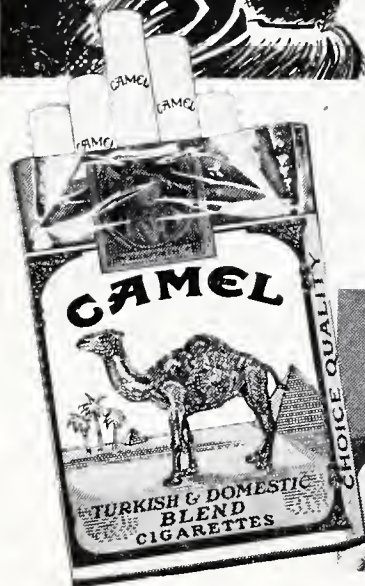
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No. 7

### A RATIONAL APPROACH TO PEDIATRIC SURGERY \*

HOWARD S. STERN, M.D.  
Pine Bluff

With each succeeding day the field of pediatric surgery is more surely approaching the status of a recognized, distinctive surgical specialty. Recognition is being accorded the fact that infants and small children are a group whose physiology is quite alien to that of the adult—a group anabolic in phase while their elders are katabolic.

In a number of the larger cities there are highly trained men who limit their work to pediatric surgery; but in the nation at large, such work is done either by general surgeons or by general practitioners whose training was confined largely to work with adults, and who too frequently fail to consider the vastly different requirements of the rapidly growing organism that is the child. From this situation has arisen the erroneous belief by many men, that the child is a poor risk and cannot tolerate a great deal of surgery. For this latter group, this paper is respectfully prepared, not with the idea of presenting any original material, but with the intent to point out some of the basic precepts that will engender a better understanding of the problems encountered by those who perform surgery on the very young.

Where elective surgery is to be done there is no urgency. It therefore behooves the pediatrician and surgeon, working as a team, to expend every effort to insure that the child shall enter the operating room in optimum condition. Responsibility during the preparatory phase rests with the pediatrician. All possible foci of infection such as abscessed teeth, urinary and upper respiratory infections should be eliminated. After upper respiratory infection, or exposure to any of the acute infectious diseases, a period of three to six weeks should elapse before the operation is even considered. Dehydration and/or

acidosis of any degree should be relieved by the administration of oral or parenteral fluids so that a normal electrolyte balance is reestablished. Preoperative diet of high protein content, supplemented if necessary by protein hydrolysates or amino acids is essential to proper wound healing. It must be remembered that children, and especially infants require relatively greater quantities of protein than adults. The child must not only repair damage and heal his wound, but he must continue to increase his size and bulk at the same time. Daily vitamin requirements must also be met, especially that of ascorbic acid which protects capillary integrity, and thereby promotes better wound healing.

Blood studies should reveal any anemia, discrepancy in clotting time, or hemoconcentration, and these conditions should be corrected with the best means at hand. An enlarged thymus should be given adequate preoperative X-ray therapy. If possible, the patient should be permitted to remain in the hospital for several days before operation in order to make important psychic readjustments.

If urgent surgery is required, it is obvious that such elaborate precautions cannot be taken; but with very few exceptions it is not only possible but desirable to spend from two to four hours in preoperative preparation. During this time blood, plasma, parenteral fluids, amino acids, penicillin or sulfonamides may be administered in quantities that may prove lifesaving. Here, again, it is the pediatrician who should say when to operate.

Once within the operating room, the responsibility becomes the sole property of the surgeon. The pediatric operating room should be kept at a higher temperature than one used for adults (75-80 degrees F.) It must be remembered that the ratio of body surface area to body volume is, in the infant, approximately twice that of the adult, (1) hence heat and fluid loss by evaporation are correspondingly increased, making shock from this source a very real danger. The use of hot water bottles and warm coverings will aid greatly in avoiding this.

\* Read before Seventy-second Annual Session, Arkansas Medical Society, Little Rock, April 16, 1948.



Gaily decorated walls and ceilings in the operating room will dispel a great deal of its chilly austerity and give the youngster a larger sense of security. This in turn will result in a more peaceful induction of anesthesia.

**Anesthesia:** Wherever possible, the child should have had a preoperative injection of atropine sulfate in order to dry up bronchial secretions that render proper induction of anesthesia difficult; as well as to lessen the possibility of aspiration of secretions into the lungs proper. Atropine has also been shown to possess a beneficial effect in slightly stimulating the Vagus center and thus protecting the heart muscle from irritation by the anesthetic agents. (2) The author customarily employs gr. 1/600 for infants under two months of age, and from 1/450 to 1/300 on larger children. Preoperative sedation is seldom necessary except in larger children, and in these cases phenobarbital in appropriate doses is usually adequate.

Of the anesthetic agents themselves, ether by the open drop method is by far the safest, and best tolerated by children. It produces marked sweating, however, and the resultant fluid and heat loss should be carefully watched and corrected. One should also guard against the so-called false anesthesia (3) which occurs in children under ether narcosis. The child, seemingly relaxed and asleep, will react violently at the first manoeuvre such as preparing the abdomen, or incising the skin. Death due to ventricular fibrillation is not uncommon in this event. The anesthetist should assure himself of the proper plane of anesthesia, and then so inform the surgeon. One should **never** start any operation without the permission of the anesthetist.

Cyclopropane with oxygen and helium has proven itself a very effective and, in competent hands, safe anesthetic for children. It is the agent of choice where positive pressure anesthesia is required, as in surgery of the chest. If deep anesthesia is needed, cyclopropane and ether can be mixed with safety.

Chloroform, which is still used in some places, is mentioned only to be condemned. It has long been classed as an unsafe anesthetic in that it produces cardiac failure before respiratory failure in the fourth stage. It is well known as a cardiac irritant (4) causing ventricular fibrillation; and as a source of acute hepatitis.

Local anesthetic agents have a useful role in selected cases, but should not be used for intra-abdominal procedures. Many men do use local

infiltration for pyloromyotomies, but the author feels that this is unnecessarily brutal and prefers general anesthesia in these cases.

**The Operation:** Contrary to general belief, speed is not the essence of pediatric surgery. Infants and small children will tolerate a long anesthetic with a careful, gentle, meticulously done operation much better than a hurriedly done short one. Speed should never be attained at the expense of thoroughness or gentleness, but should be obtained in the elimination of wasted time and unnecessary procedures.

In general, instruments for working with small children should be small and few. Suture material should be as fine as is compatible with the work at hand. Incisions should be sufficiently generous to make for optimum exposure. A "buttonhole" takes just as long to heal as does a long incision. Hemostasis must be immaculate. Blood loss is not tolerated in the small child. The surgeon must always remember that the total blood volume in an infant is approximately 1/18 that of a medium sized adult, and accordingly, the loss of a couple of tablespoonsful of blood in the infant is equivalent to the loss of a pint in either parent. (1) With this in mind it is wise to have a transfusion running before the incision is made in any operation that is apt to last very long, or to involve any considerable blood loss. This measure will not only protect the blood volume, but will mitigate against shock.

Perhaps the most important aspect of pediatric operations is the avoidance of trauma. Tissues and organs not directly concerned with the operation should be left strictly alone. This, of course, requires the surgeon to have a fairly definite course of action planned before the incision is made. Obviously, there are times when plans must be changed to meet unexpected situations, but as a rule, the operation can be carefully outlined beforehand. Heavy instruments should not be allowed to hang on the child for long periods, and the assistant must occasionally be cautioned not to lean on the patient.

**Postoperative Care:** On his return from the operating room it is imperative that the child be kept warm. In larger children this can be accomplished with bed coverings. In dealing with infants, it is the author's custom to place the patient in an incubator in shock position for some twelve to twenty-four hours after surgery,



after which his heat is protected by adequate coverings.

When sweating has been profuse, or when the pulse is at all rapid, fluids should be administered in the most convenient manner. In small infants, ten cc of plasma per pound of body weight per day for two or three days will usually suffice to carry the little fellow through the period of greatest danger. Other therapeutic measures should be instituted as indicated. Where necessary, proper restraints should be applied to protect the dressings.

In peritonitis as well as in all operations on the intestinal tract, oxygen given intranasally or in a small tent is of inestimable value. Where there is no contraindication, early ambulation will aid greatly in decreasing the recovery time, but this can be practiced only in ambulant children who can cooperate with the staff in the matter of not playing with dressings, etc.

Under the guidance of the pediatrician, feedings should be resumed as soon as the patient can tolerate them. Breast or formula feedings can usually be resumed a few hours after the operation, and should be built up gradually from formulae of low curd tension to the normal over a period of several days. In cases where oral feeding is not feasible, the parenteral administration of amino acid preparations fortified with the necessary vitamins will provide essential materials for healing and growth. Small infants and young children require approximately five grams of protein per kilogram of body weight. (5)

Sedation is seldom necessary, but should the need arise, small amounts of codein usually suffice. This does not mean that morphine should be withheld if indicated.

**Conclusions:** In summing up, the author wishes to emphasize the following points:

1. Infant and early childhood physiology is different (anabolic) from that of the adult (katabolic), so that the problems encountered in pediatric surgery are likewise different from those of adult surgery.

2. For optimum results, close teamwork between the pediatrician and the surgeon are essential. Each should recognize and defer to the greater knowledge of the other in their respective phases of the work.

3. Proper preoperative preparation is of the utmost importance in assuring a smooth operation, and better chances for recovery therefrom.

4. GENTLENESS, planned procedure, immaculate hemostasis, and preservation of body heat and fluids are much more important than speed in working with the very young.

5. Careful nursing, and detailed attention

to metabolic requirements will go far in assuring an uneventful postoperative course.

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#### OBITUARY

ALEXANDER M. LISENBEE, age 61 years, of Sparkman, died November 11th. Born at Winona, Mississippi, he graduated from the Tulane University of Louisiana in 1910 and had practiced in Dallas County for many years. He had served in the various offices of his county medical society and was a Fellow of the American Medical Association. Surviving relatives are his wife and a daughter.

E. G. FENDLEY, age 66 years, died at his home in Leslie November 1st. A practicing physician in Searcy county for more than 42 years, he was an active member of the Searcy County Medical Society, a Mason and a leader in the county Republican organization. Surviving relatives are three daughters and three brothers.

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\* Sherman, H. C.: Some Recent Advances in the Chemistry of Nutrition, *J.A.M.A.* 97:1425-1430 (Nov. 14) 1931.



## THE RELATIONSHIP OF UROLOGY TO THE OTHER SPECIALTIES \*

H. KING WADE, JR., M.D.  
Hot Springs National Park

Diagnosis is the basis of medical practice. If diseases always presented the classical symptoms as laid down in the text book, diagnosis would never be a major problem. However, as is well known, diseases do not always follow the characteristic pattern, and symptoms are often vague, confusing, and misleading. Diseases of the genito-urinary tract, in particular, may be major offenders in this respect.

Diseases of the urinary tract produce symptoms referable not only to the urinary tract, but also to the bone and muscular systems, the gastro-intestinal tract, the hemopoietic system, and, in fact, to almost any system in the body. Any combination of these symptoms may appear, but they are not always necessarily present at the same time. Urinary tract disease may also be present without any urinary tract symptoms.

In the study of urinary tract diseases we are taught to expect to find various pain patterns, rather definitive as to type, location, and radiation. Certain disturbances of urinary habits are to be anticipated. Gastro-intestinal symptoms may be present and certain general systemic reactions. To illustrate the variations that may occur let us consider the symptoms of costo-vertebral angle and loin pain and its radiation. Hugh Young (1) has pointed out that pain in the costo-vertebral angle and the loin may occur not only from renal disease, but from (1) spinal arthritis, (2) muscular strain, (3) nerve root pains in the lower dorsal region, (4) retrocecal appendicitis, (5) post-diaphragmatic pleurisy, (6) splenic disease, (7) gall bladder disease, (8) colon disease, and (9) duodenal disease. This illustrates the problem of differential diagnosis which arises in many of these cases, not only for the general practitioner or the specialist in other fields, but for the urologist as well. Young (2) further points out that the pain radiation from renal disease does not always adhere to the characteristic nerve distribution, that being to the groin and external genitalia, but may radiate to the opposite kidney, to the epigastrium, to the leg, or toward the scapular region.

Therefore, the diverse symptoms or urological disease may manifest themselves in such a way as to cause the patient to seek the services of the general practitioner or a member of almost any of the specialties before he is brought into

the hands of the urologist. To illustrate this relationship of urology to the other specialties let us consider what may come to the attention of the other specialists and the general practitioner in the way of genito-urinary disease.

The pediatrician is usually the first man consulted in cases of enuresis. All too frequently in the past enuresis has been passed off as "nervousness" or "bad habits." Today we know that the percentage of enuretics with actual organic pathology within the urinary tract is high enough to justify a complete urological survey of every enuretic. This was very vividly brought out in Doctor T. Leon Howard's paper to this group last year on "Pathology in the Making." The pediatrician must also remember that renal, ureteral, and vesicle calculi may appear in the very young. Stones in children twenty months of age and younger have been reported. According to Newns (3) acute pyelitis is one of the most common infections of childhood. It is frequently undiagnosed, especially in infants in whom the symptoms are often vomiting and diarrhea. Symptoms referable to the genito-urinary tract are often absent. This condition should be suspected in the presence of an unexplained praxia, especially in female babies. Congenital anomalies of the urinary tract may present general systemic symptoms with anemia, lethargy, general malaise, and little else. These may be fatal in their termination unless diagnosis is established early.

The internist will frequently see patients with urological disease whose symptoms are limited to the gastro-intestinal tract. The chief complaint of many of these patients, as they themselves will say, is "stomach trouble." Gastro-intestinal symptoms here are usually vague abdominal discomfort, gaseous eructations, indigestion, nausea and vomiting, and, occasionally, constipation. Renal tumors, renal cysts, renal calculi, hydronephrosis, and nephroptosis, frequently produce this symptom complex. Gall bladder and colon disease, splenic lesions, peptic ulcers, and pelvic disorders may all receive consideration in the differential diagnosis in these cases when the primary disease is within the genito-urinary tract. In the Pacific theatre during the War, malaria and pyelitis were frequently confused. Van Duzen (4) has reported three cases treated for duodenal ulcer on the basis of gastro-intestinal symptoms which were found to be due to a ptosed kidney.

The chief problem for the surgeon is the differentiation between unreteral calculus and

\* Read before Seventy-second Annual Session, Arkansas Medical Society, Little Rock, April 16, 1943.



acute appendicitis. Urinalysis, scout film, and cystoscopic study may be necessary for final diagnosis. The acute gall bladder may also create this same type of problem, requiring similar diagnostic studies. T. Leon Howard cites a case operated on seven times for abdominal complaints which were finally alleviated by nephropexy.

The orthopedist sees many backaches, high and low, which may be primarily urological in origin. He should never forget that backache is an outstanding symptom in various diseases of the urinary tract. Apparently one of the most confusing of the differential diagnoses which he is called upon to make is that between Paget's disease, bony metastasis from the carcinomatous prostate, and spinal arthritis. A rectal examination is of unequalled value here. Every doctor should know the feel, size, and consistency of a normal prostate and should be able to tell the normal from the abnormal. These low backaches, as a rule, will often first elicit suspicion of arthritis, sacro-iliac disease, and various other bone, muscle, and nerve disease entities. We must all remember, of course, that two or more of these diseases may be concurrent.

The proctologist may be consulted by the patient with complaints of burning in the rectum, constipation, and pain in the perineum. It must be remembered that various types of prostatic disease and/or, disease in the posterior urethra may cause somewhat similar symptoms. Fortunately, the proctologist's problem here is usually a simple one, as proctoscopic examination will demonstrate the presence or absence of anal or rectal disease.

As stated previously, urological disease may exist without urinary tract symptoms, the patient presenting neither physical nor laboratory findings of any significance. It is recommended, therefore, that in those cases which present a bizarre clinical syndrome, in which apparently all other systems have been cleared, the urological tract should be surveyed regardless of the absence of symptoms referable to that tract. A case will be presented to illustrate this point.

### ILLUSTRATIVE CASES

**Case I.** M. R. Age 3 years, white male, with a history of frequent attacks of bladder infection, occurring as a rule with upper respiratory tract infections. Enuresis was also present. An acute attack occurred in February, 1948, with severe dysuria, pyuria, and pyrexia, which led to a urological consultation. A congenital

valvular obstruction of the bladder neck was found with hugely dilated ureters. There was no renal function, as far as intravenous pyelograms were concerned, indicating extensive damage to both kidneys. If, in this case the child had been subjected to a detailed urological examination two years previously, the pathology could have been corrected, and the kidney damage averted.

**Case II.** H. S. Age 70 years, white male, with complaint of back pain for ten years. This backache was located across the left lumbar region and in the left hip. The urinary stream was sometimes small and slow to start on arising in the morning. This was the only urinary symptom. Urinalysis showed 2+ RBC and an occasional pus cell. A routine scout film showed arthritic changes throughout the lumbar spine and a kidney stone 2 cms. in diameter in the left kidney. The arthritis could be responsible for symptoms, but beyond doubt the kidney stone was the principal factor. Subsequent surgery proved this point in that the backache was relieved.

**Case III.** I. W. W. Age 73, white male, with complaints of "gas" in right side of abdomen for two years and chronic constipation. The patient also had hypertrophic arthritis. There were no significant urinary symptoms. Urinalysis showed many red blood cells and an occasional pus cell. Scout film showed a large renal calculus, 2½ cms. in diameter, and several small calculi in the right kidney. The right kidney was markedly ptosed. The symptoms in this case were predominantly gastro-intestinal. Surgery was refused.

**Case IV.** N. G. B. Age 46, white female, with history of recurring attacks of pain in the region of McBurney's point over a period of approximately twenty years. Last attack was very severe. A tentative diagnosis of acute appendicitis was made and the patient prepared for surgery. Urinalysis showed the urine to be full of WBC and RBC. Patient was then referred to the urologist. Scout film revealed a large ureteral calculus in the middle third of the right ureter. The right kidney was destroyed by the resultant hydronephrosis. Nephrectomy and uterectomy relieved all complaints.

**Case V.** H. G. Age 35, white male, with complaint of soreness and tenderness in the left side of abdomen since childhood. The pain was in the left flank and radiated to the epigastrium and occasionally down to the left loin. The pain was almost constant. It was dull and nag-



ging and was accentuated on walking down stairs or stepping over a curb. There were no urinary symptoms at the time of examination. On one previous occasion pus had been found in the urine which did not clear up on treatment. The patient was examined in the Army and labeled a psychoneurotic by the psychiatrists. No thorough urological examination had been previously made. A pyelogram showed a hydro-nephrotic kidney on the left. The patient was later operated on at the Army and Navy General Hospital in Hot Springs with disappearance of all symptoms.

**Case VI.** L. W. Age 54 years, white male, with complaints of loss of appetite and extreme weakness of six to seven months' duration. Six to seven months previously the patient was told he had tuberculosis in the right lung. This was later disproved. However, since that time patient had had loss of appetite, easy fatigue, generalized aching, loss of weight, and occasional nausea and vomiting. There were no other symptoms of any significance. The urine showed an occasional pus cell. On examination the patient was found to have a mass in the right side of the abdomen extending across the epigastrium and a non-functioning gall bladder. Exploratory laparotomy was done and a hypernephroma of the right kidney was discovered. This illustrates that serious renal disease may be present without urological symptoms.

**Case VII.** S. L. B. Age 60, white male, with complaints of pain in the chest, upper back, shoulders, and lower back, and nocturia, three to four times, for several years. The urine examination was negative. The prostate was stony hard. The final diagnoses were (1) carcinoma of the prostate with metastasis to the spine and pelvis, (2) radiculitis of the 6th, 7th, 9th, and 10th dorsal nerve roots and (3) osteoarthritis of the spine. The patient was examined in a fairly large city in another Southern state by three reputable physicians. Diagnoses of arthritis and neuritis were made. One of these three doctors had done a rectal examination and had remarked that the prostate did seem "hard." This case illustrates that genito-urinary disease may be concurrent with other diseases and that the ability to differentiate a normal prostate from an abnormal prostate is very important. The patient showed marked improvement when started on anti-prostatic carcinoma therapy.

#### SUMMARY AND CONCLUSIONS

(1) Symptoms of urinary tract disease are often confusing and misleading, causing the

physician to focus his attention on other tracts and portions of the body in the search for a diagnosis.

(2) All enuretics should have a complete urological survey.

(3) Every patient should be entitled to a urinalysis before appendectomy. If the urine is suspicious, a thorough urological survey is warranted.

(4) Every physician should be able to distinguish the abnormal prostate from the normal.

(5) Serious urinary tract diseases may exist without any urinary tract symptoms.

(6) In the presence of urological disease, gastro-intestinal symptoms may predominate.

(7) Seven cases have been presented to show the diversity of the symptoms of urinary tract diseases and to illustrate the diagnostic problems that may arise from the presence of these diseases.

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5. Note: Illustrative cases taken from record files of Wade Clinic and Doctor Euclid Smith, Hot Springs National Park, Arkansas.





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EDITORIAL

REGIONAL CONFERENCE OF THE COUNCIL  
ON MEDICAL SERVICE

SID WRIGHTSMAN, JR.  
Executive Secretary

The South Central Regional Conference of the  
Council on Medical Service of the American  
Medical Association held November 13 and 14  
in Tulsa, if little else, conceivably accomplished  
one important purpose: it brought together  
members of the AMA's reigning heirarchy and  
a representative group of practicing physicians  
on a man-to-man basis, awarding to those in-  
volved the opportunity to cement a closer per-  
sonal relationship by discussing local problems  
of a medical profession and what to do about  
them.

Physicians from Arkansas, Kansas, Louisiana,  
Missouri, Oklahoma and Texas during the two-  
day session listened to and asked questions of  
such representatives of the American Medical  
Association as James R. McVay, chairman of  
the Council on Medical Service; Harold R. Hen-  
nessy, secretary of the Council on National  
Emergency Medical Service; Mr. Thomas A.

Hendricks, secretary of the Council on Medical  
Service and Joseph S. Lawrence, director of the  
Council's Washington office.

Conducted in roundtable fashion, present-day  
problems relative to the effects of the recent  
election on future medical legislation, methods  
of improving medical school techniques, hospital  
encroachment on the practice of medicine and  
aspects of the recent Ewing Report to the Presi-  
dent received emphasis in the discussions.

The range of discussion was extensive, but sub-  
jects tended to fall into three main categories:  
(1) How to turn out more doctors; (2) How to  
induce highly-trained young physicians to take up  
practice in smaller communities; and (3) How to  
halt the inroads of government medical services  
into the field of private professional enterprise.

In every case, questions and additional com-  
ments on the specific subjects were encouraged  
from participating physicians, and with success.  
High points in the discussions were numerous.

J. D. McCarthy of Omaha, member of the  
Council on Medical Service, emphasized that  
the future of the medical profession in America  
today now rests squarely on shoulders of the  
medical profession. The responsibility remains  
solely with the individual physician to prove to  
the American people that the doctor's newly-  
defined efforts coupled with workable voluntary  
prepayment plans make government compulsory  
health insurance unnecessary.

Dr. Franklin D. Murphy, dean of the Univer-  
sity of Kansas Medical Center, opined that pres-  
ent medical schools are operating under out-  
moded, purely traditional "ivory tower" think-  
ing. The mass of present knowledge is so great  
that medical school training must be reorganized  
and reformatized, with the practicing profession  
actively taking interest and cooperating with the  
schools by watching closely all legislation con-  
trary to their welfare. In addition, the goal of  
medical students must be redefined so as to  
make them realize after graduation their social  
and economic obligations to take active part in  
day-to-day government and not to isolate them-  
selves in their medical knowledge and become  
unconscious about what may be going on around  
them, as has been the case up to the present.  
Finally, there must never be compromises made  
in maintaining standards of medical schools  
merely to increase out-put of new physicians.

Kansas, he explained, is seeking to attract  
young physicians to the small communities where  
they are most needed by encouraging these



small communities, through their commercial and civic bodies, to make available modern facilities for young doctors under a plan which will permit them to amortize the facilities and purchase them out of income. Because it is recognized that young men do not want to become medically isolated in the small towns, the University of Kansas School of Medicine is extending its program of postgraduate medical education for their benefit, including the practice of sending teams of doctors into outlying areas for lectures and seminars which enable the young doctors in those areas to have advantage of the most recent in medical science and practice.

Dr. Daniel J. Murphy of New Orleans warned of the increasing practice of hospitals encroaching on the medical profession by hiring physicians on a salary basis which tends to submerge them and their work while the hospital psychologically takes the credit away from the physician. Though this practice has been realized as existent and frowned upon by the American Medical Association, nothing may be done about it at the present because AMA has no policing powers. A California Supreme Court recently favored the medical profession in that state by ruling that no hospital can hire a licensed physician on a salary basis. Other states will no doubt follow suit, he predicted.

Chairman James McVay, Mr. Tom Hendricks and Joseph Lawrence, who carefully followed activities of the Medical Care Panel of the National Health Assembly were quick to charge the Ewing Report on the nation's health to President Truman as being merely a political tool of the most insidious sort, utilizing every mode of propaganda to impress the nation falsely into accepting a form of socialized medicine.

Of the 325,000 annual deaths, claimed by Mr. Ewing as being preventable, approximately 155,000 of these are assuredly not preventable, it was pointed out. This figure, quite blatantly lumped in the total by Mr. Ewing, included 40,000 annual fatalities from accidents of every sort and 115,000 yearly deaths from cancer and heart disease, clearly unpreventable at the present by physicians.

Joe Lawrence predicted that Ewing's report would probably become the politician's bible during the coming four years and therefore could not be laughed off. The danger of the report comes not from the chairmen of the national committees who have been exposed unceasingly since 1939 to the efforts of the

small socialistic clique to impress socialized medicine on the American public, but from the hometown people who will be manipulated into believing that the Ewing Report presents a true picture. The responsibility for correcting this untrue picture of the nation's health now resides with each individual physician as he goes about his daily practice, Doctor Lawrence concluded.

Finally, the South Central Regional Conference indicated by the interest displayed, the increasing need for additional conferences of this nature between local physicians and the American Medical Association. By attracting practicing physicians, too busy to keep informed about month-to-month trends in their profession, these conferences afford the opportunity to keep abreast of the political times and to establish a needed awareness of the American Medical Association and its interest in their behalf.

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### LAWS REGULATING DP DOCTORS PROTECT AMERICAN PEOPLE

Laws which confront foreign physicians who want to practice medicine in the United States were set up as a protection against unqualified and incompetent doctors, explains an editorial appearing in the current (Nov. 13) issue of The Journal of the American Medical Association.

The editorial says in part:

"The laws regulating medical licensure were not adopted for the protection of the medical profession but for the protection of the American people against unqualified and incompetent doctors.

"The laws of the various states differ. Some states require full citizenship; others require first papers; some require a year of internship in a hospital within the state; many of them demand fully accredited credentials which physicians from foreign countries frequently do not have.

"The medical schools of many of the foreign countries have been in a deplorable state since the beginning of the Nazi invasions. Recently (at the Forty-Fourth Annual Congress on Medical Education and Licensure, Chicago, February 10, 1948) Dr. Irving S. Wright of New York, civilian consultant in medicine to the surgeon general of the United States Army, reported on a study of the schools of Europe. One of the chief difficulties has been the attempt of the schools to take on more students than they could teach properly, since they suffer from a lack of teaching personnel and equipment.

"Europe was completely shut off from scien-



tific information developing elsewhere in the world during at least the years 1939 to 1944. Foreign doctors knew nothing whatever of the development of antibiotic drugs, of new methods of anesthesia, and of any other new medical technics which had been developed elsewhere. Estimates indicate that there are about 2,000 physicians in D.P. camps. It is unlikely that more than a few of these will eventually come to the United States.

"Many of them will accompany the people with whom they fled from their own countries. Most of them had such a difficult time keeping alive during their flight that they had little opportunity to keep abreast of medical knowledge. The younger physicians graduated from medical schools which have had a serious time trying to survive since 1933.

"The International Refugee Organization established in 1948 a special board to register the medical credentials of displaced and refugee physicians and other medical personnel. The International Refugee Organization is issuing to each person registered a certificate stating the particulars of his medical qualifications. They report that there are now in the United States zone of Germany, 1,461 registered refugee physicians, of whom 901 are general practitioners. These physicians come from all of the countries of Europe, and they represent a great variety of religious groups.

"The majority are Catholic, and about 300 are Jewish. It should be remembered that the majority of the Jewish physicians went to the German concentration camps and were destroyed either by gas or by some other technic, commonly referred to in connection with Russian activities as being 'liquidated.'

"The difficulties which confront a foreign physician in securing opportunity to practice in the United States are far less rigorous than those confronting physicians from the United States who might wish to practice abroad. There are few physicians from the United States practicing in Great Britain, and the difficulties in France are even greater.

"The Latin American countries practically forbid practice by a physician from the United States, making the conditions so severe that few physicians from the United States would wish to attempt to qualify. The methods of medical education that prevail in most other countries are quite different from those in the United States.

"The state medical boards have considered the cases of D.P. physicians with the utmost sympathy and liberality. Many of them have

been given opportunity to take examinations three, four, or more times, and in one instance a physician took the examination 10 times before he finally passed. He had spent the intervening time in study and was thereby a better physician.

"Ultimately, under the auspices of the World Medical Association or of the United Nations, some conference may be held to consider the varying qualifications demanded of a physician in different countries with a view toward greater standardization of medical education and licensure."

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### ARKANSAS' OUTSTANDING PHYSICIAN

The Council has authorized recognition to a member of the Society who will be honored as the outstanding physician for 1949 and annually thereafter. County and district medical societies are invited to send in nominations of members of the Society whom they deem worthy of the honor. The nominations will be referred to a committee which will judge the individual applications and submit the names of not more than three nominees from the list submitted by the county and district societies to the House of Delegates for final selection. The physician so designated will then be presented to the annual session as the Outstanding Physician of Arkansas and will, in turn, be nominated to the American Medical Association for consideration as the Outstanding Physician of the United States for 1949. Names must be submitted not later than January 1st, 1949.

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### RANDOM THOUGHTS OF THE SECRETARY

October 13th. To Clarksville for another of the Johnson County Medical Society sponsored cancer clinics finding here the fullest cooperation between the profession and the Johnson County chapter, American Cancer Society.

October 14th. With Hawkins, Thompson and Wrightsman to Bentonville, a trip attended with many diversions such as off-main-line jaunt to Tontitown; our interest in the Bentonville-Mountain Home football game which is yet to be played; a pleasant evening with Rollow acting the part of gracious host.

October 18th. After all these years with staff meetings of meager attendance, tonight the hospital staff meets in two separate meeting rooms, each group totally unacquainted with the other meeting in progress.

October 19th. We are overwhelmed as who would not be after the visit of an old faculty member, whose time is monopolized by Chamberlain, but who, in parting, drapes his arm about this conversational prodigy and delivers himself of this timeless query: "Whatever became of old Chamberlain?"

October 29th. Army pomp and display gives amusement as today about fifteen guards and six motor vehicles stand in front of the bank to pick up the payroll, a

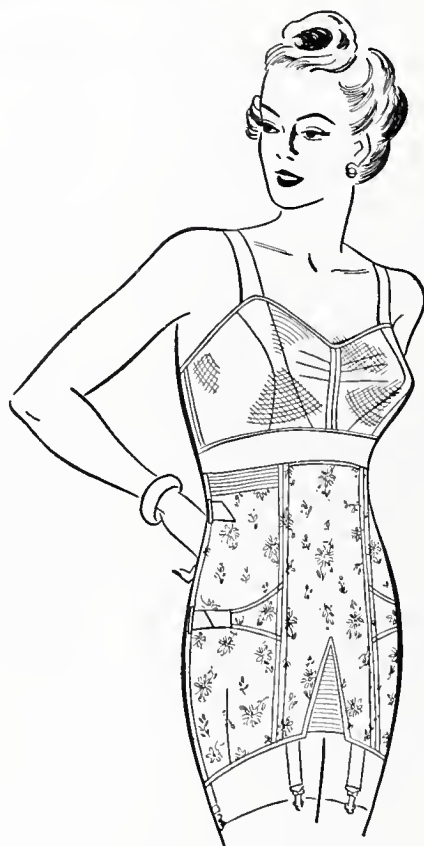


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WM



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Davis, Geo. G.	Stuttgart
*Drennen, S. A.	Stuttgart
*John, Milton C., Jr.	Stuttgart
*Rasco, C. W., Jr.	DeWitt
*Swindler, E. B.	Stuttgart
*Van Duyn, T. S.	Stuttgart
Wassell, C. MacA.	Little Rock
*Whitehead, R. H., Sr.	DeWitt
*Whitehead, R. H., Jr.	DeWitt
*Wilson, J. G.	Keo
Yarbrough, Wm. C.	Stuttgart
ASHLEY COUNTY	
*Barnes, L. C.	Hamburg
*Cockerham, H. E.	Portland
Cone, A. E.	Portland
Cothern, W. R.	Crossett
*Crandall, M. C.	Wilmot
Fitch, Leston E.	El Dorado
Hawkins, M. C.	Parkdale
Hipsley, R. W.	Crossett
Hooper, R. J.	Hot Springs
Isham, R. B.	Crossett
Martin, Ann L.	Crossett
Mask, D. L.	Hamburg
McCants, John M.	Crossett
McMillan, Marcy	Crossett
Norris, A. W.	Crossett
Parker, J. L.	Snyder
Regnier, Geo. G.	Parkdale
*Regnier, W. A.	Hamburg
Salb, R. L.	Crossett
Sanner, J. E.	Crossett
Smith, M. L.	Crossett
*Spivey, C. E.	Hamburg
*White, E. O.	Hamburg
Wood, Jack A.	Fountain Hill
Wood, J. T.	Fountain Hill
BENTON COUNTY	
Applegate, C. S., Jr.	Bentonville
Atkinson, R. M.	Bentonville
Blauw, Chas. G.	Siloam Springs
Bucklelew, H. H.	Rogers
Chastain, M. W.	New York, N. Y.
Collette, E. L., Jr.	Rogers
Compton, Neil	Bentonville
Dean, Lee A.	Rogers
*DeBolt, G. C.	Little Rock
Gulledge, J. F.	Siloam Springs
Hodges, Guy	Rogers
Hughes, G. A.	Siloam Springs
Huskins, J. D.	Siloam Springs
Jackson, J. L.	Bentonville
Jennings, W. E.	Rogers
Love, Geo. M.	Rogers
Moore, W. A.	Rogers
Peacock, A. L.	Gentry
Pickens, J. L.	Rogers
†Pickens, W. A.	Bentonville
Rollow, John A.	Bentonville
Siler, K. A.	Siloam Springs
Williams, Rex	Siloam Springs
Wilson, C. S.	Siloam Springs
Wilson, Stewart M.	Siloam Springs
BOONE COUNTY	
Adams, A. V.	Yellville
*Bradley, W. A.	Harrison
Breit, Wm. H.	Harrison
Dobbins, Thomas	Clinton, Okla.
Fowler, Ross	Harrison
Frailey, D. M. G.	Harrison
*Gladden, J. C.	Harrison
Gladden, J. G.	Harrison
*Jackson, Ulys	Harrison
*Kirby, H. V.	Harrison
Morrow, J. J.	Mountain Home
*McCoy, O. B.	Harrison
*Owens, D. L.	Harrison
Pearce, C. G.	Mountain Home
Poynor, W. H.	Harrison
Watkins, W. L.	Alpena Pass
Weast, L. M.	Yellville
BRADLEY COUNTY	
*Crow, Marvin T.	Warren
*Crow, Merle T.	Warren
*Dew, Hogan A.	Warren
*Greene, Robert E.	Warren
*Hunt, W. J.	Warren
Martin, Rufus	Warren
Reasons, W. B.	Hermitage
Roark, W. N.	Hermitage
CARROLL COUNTY	
Bohannon, J. H.	Berryville
Butt, W. A.	Green Forest
*Carter, A. L.	Berryville
Donaldson, C. W.	Green Forest
John, J. F.	Eureka Springs
*McCurry, D. K.	Green Forest
Roberts, D. C.	Berryville
Van Pelt, Ross	Eureka Springs
Woodcock, W. A.	Berryville
CHICOT COUNTY	
Baker, E. E.	Dermott
*Barlow, B. E.	Dermott
*Binns, B. Z.	Eudora
*Bottorff, M. K.	Lake Village
*Burge, J. H.	Lake Village
Clark, B. C.	Lake Village
Douglas, S. W.	Eudora
Easterling, Tom	Little Rock
*Easterling, W. D.	Lake Village
*Harris, Julian L.	Eudora
*McGehee, E. P., Jr.	Lake Village
*Thomas, H. W.	Dermott
*Thompson, J. A.	Dermott
CLARK COUNTY	
Barnett, J. R.	Arkadelphia
Bremer, J. P.	Point Cedar
Bryan, R. L.	Arkadelphia
Doane, S. N.	Arkadelphia
Drewery, L. E.	Camden
Hill, Wm. T.	Gurdon
Kennedy, Jack W.	Arkadelphia
Norton, J. M.	Arkadelphia
Pate, J. N.	Arkadelphia
Reid, Joe W.	Arkadelphia
Ross, W. A.	Arkadelphia
Thompson, A. W.	Gurdon
Toombs, Vernon L.	Gurdon
Townsend, C. K.	Arkadelphia
CLAY COUNTY	
Blackwood, W. J.	Rector
*Clopton, O. H.	Rector
Futrell, J. B.	Rector
Hiller, J. P.	Pollard
Jones, F. H.	Piggott
Latimer, N. J.	Corning
McGuire, J. E.	Piggott
Turner, W. E., Sr.	Piggott
*Turner, W. E., Jr.	Piggott
CLEVELAND COUNTY	
Dunman, B. E.	New Edinburg
Hancock, W. G.	Rison
Scroggin, J. H.	Kingsland
COLUMBIA COUNTY	
Baker, J. J.	Magnolia
*Burt, E. G.	Magnolia
*Carrington, H. K.	Magnolia
Hawkins, H. M.	North Little Rock
Horn, W. H.	Magnolia
*Jones, T. H.	Waldo
Jordan, T. S.	Magnolia
*Kitchens, H. H.	Waldo
Longino, L. A.	Boston, Mass.
*McLeod, G. F.	Magnolia
Mullins, G. E.	Emerson
*Ruff, John L.	Magnolia
*Rushton, J. F.	Magnolia
*Sizemore, Paul	Magnolia
*Smith, P. M.	Magnolia
Souter, A. J.	Waldo
*Souter, T. E.	McNeil
*Weber, Chas. L.	Magnolia
*Wilson, John H.	Magnolia
CONWAY COUNTY	
Ballenger, W. E.	Plainview
†Close, Edgar	Jerusalem
Etheridge, C. E.	Morrilton
Halbrook, J. F.	Morrilton
Hardison, T. W.	Morrilton
Holloway, O. R.	Morrilton
Jones, G. W.	Morrilton
Jones, R. A.	Perry
Matthews, J. M.	Morrilton
Mobley, A. L.	Fort Bayard, N. M.
Mobley, H. E.	Morrilton
Porter, James O., Jr.	Morrilton
Williams, C. R.	Morrilton
CRAIGHEAD-POINSETT COUNTY	
Alcott, Geo. B.	Weiner
*Barrett, E. R.	Jonesboro
Barrett, R. M.	Black Oak
*Berry, W. E.	Jonesboro
*Blanton, M. E.	Jonesboro
Burge, H. G.	Nettleton
Bryant, Robert H.	Little Rock
Campbell, G. O.	Trumann
*Cohen, O. T.	Jonesboro
Cohen, Robt. S.	Jonesboro
Dickerson, D. A.	Marked Tree
*Faris, John C.	Jonesboro
Gibbins, J. C.	Monette
Harper, Bland R.	Monette
Harris, Chas. P.	Jonesboro
Hartwig, C. D.	Lake City
Horner, E. J.	Jonesboro
*Jones, J. H.	Lepanto
*Jones, J. K.	Lepanto
Kinzer, G. M.	Caraway
Ledbetter, Jos. W.	Jonesboro
Ledbetter, Paul	Jonesboro
Long, Charles E.	Jonesboro
*Lutterloh, P. W.	Jonesboro
Lynch, R. H. F.	Caraway
Martin, J. A.	Jonesboro
McCurry, J. H.	Cash
McDaniel, L. H.	Tyrnza
CRAWFORD COUNTY	
Bennett, B. L.	Van Buren
Cowan, Riley	Van Buren
Crigler, J. R.	Alma
Dixon, Chas. B.	Van Buren
Galloway, Q. R.	Alma
Grant, S. C.	Fort Smith
Kirkland, S. D.	Van Buren
Kirksey, O. J.	Mulberry
Savery, H. W.	Van Buren
CRITTENDEN COUNTY	
*Hare, T. S.	Crawfordsville
*Hamilton, R. B.	West Memphis
*Irby, J. T.	Earle
McVay, L. C.	Marion
Parker, A. C., Sr.	Clarksdale
Parker, A. C., Jr.	Memphis, Tenn.
Purnell, R. L.	Marion
*Ray, Robert H.	Earle
Schoettle, G. P.	West Memphis
Stevenson, B. M.	West Memphis
*Watson, H. S.	Earle
CROSS COUNTY	
Barr, A. F.	Cherry Valley
Carson, L. E.	Wynne
Hickman, R. L.	Hickory Ridge
Lamb, J. W.	Wynne
†Peterson, T. A.	Wynne
Price, Thomas G.	Wynne
Smith, R. S.	Parkin
Wilson, Thomas	Wynne
DALLAS COUNTY	
Atkinson, H. H.	Fordyce
Cheatham, H. A.	Princeton
Ellis, W. S.	Fordyce
Estes, E. E.	Fordyce
Estes, S. J.	Fordyce
Lisenbee, A. M.	Sparkman
Taylor, J. E. M.	Sparkman
DESHA COUNTY	
Biscoe, Gibbs	Dumas
Biscoe, Goree	Dumas
Chennault, J. C.	McGehee
*Hellums, J. H.	Dumas
Kimbro, C. H.	Tillar
*Leverett, Chas.	McGehee
*Moss, Swan	McGehee
*Rands, H. A.	Dumas
Robinson, Guy U.	Dumas
Smith, H. T.	McGehee
DREW COUNTY	
*Binns, Vann C.	Monticello
Gibbons, Geo. E.	Monticello
Holder, J. B.	Monticello
*Hyatt, C. Lewis	Monticello
*Hyatt, Robert F.	Monticello
†Pope, M. Y.	Monticello
*Price, J. P., Jr.	Monticello
FAULKNER COUNTY	
Archer, C. A., Jr.	Conway
Dawson, R. L.	Bee Branch
Dickerson, Cecil H.	Conway
Downs, J. H.	Vilonia
Dunaway, E. L.	Conway
Fraser, N. E.	Conway
Gordy, L. F., Jr.	Conway
Harrod, George	Conway
Hassell, L. L.	Conway
Ingram, E. M.	Enola
Johnston, W. W.	Valhalla, N. Y.
Lieblong, J. S.	Greenbrier
Lieblong, Keller	Conway
Mabry, Tom	Vilonia
McCollum, I. N.	Conway
Sneed, J. W.	Conway
Taylor, R. L.	Conway
Williams, E. T.	Greenbrier
Bollinger, W. H.	Charleston
Gibbons, W. H.	Ozark
Long, C. C.	Ozark
Pillstrom, E. W.	Ozark
GARLAND COUNTY	
*Adams, Frank M.	Hot Springs
Atkinson, R. H.	Hot Springs
*Black, T. N.	Hot Springs
Blackshare, W. M.	Hot Springs

† Deceased  
\* Wife is member of Auxiliary



*Bohnen, Loren O.	Hot Springs
*Bollmeier, L. N.	Hot Springs
*Boydstone, J. O.	Hot Springs
Brewer, Howell	Ft. Thomas, Ky.
*Browning, E. R.	Hot Springs
*Burch, N. B.	Hot Springs
*Burk, J. E.	Hot Springs
*Burton, F. M.	Hot Springs
*Casada, B. F.	Hot Springs
*Chamberlain, W. W.	Hot Springs
*Chenault, H. Clay	Little Rock
*Chestnutt, J. H.	Hot Springs
*Clardy, E. K.	Hot Springs
*Coffey, G. C.	Hot Springs
Connell, DeBert W.	Hot Springs
Connell, W. H.	Hot Springs
*Daniel, R. L.	Hot Springs
Dembinski, T. H.	Hot Springs
Diederich, V. P.	Hot Springs
*Ellsworth, E. H.	Hot Springs
*Fletcher, Geo. B.	Hot Springs
*Garratt, C. E.	Hot Springs
Goetze, Dorothy	Hot Springs
*Goodrum, W. A.	Hot Springs
*Gray, W. E.	Hot Springs
*Hebert, Gaston A.	Hot Springs
Holmes, M. Charlotte	Hot Springs
*Hogaboom, G. M.	Heavener, Okla.
Houston, Evan S.	Hot Springs
*Jackson, H. G.	Little Rock
Jackson, W. W.	Hot Springs
Jarrell, Foster	Hot Springs
*King, Leeman H.	Hot Springs
King, O. H.	Hot Springs
*Klugh, W. G.	Hot Springs
*Kootsey, J. S.	Hot Springs
*Lee, D. C.	Hot Springs
*Lee, Wm. R.	Hot Springs
*Lutterloh, C. H.	Hot Springs
*Martin, L. G.	Hot Springs
McCrary, Robert F.	Hot Springs
McKenzie, E. M.	Hot Springs
Moss, C. S.	Hot Springs
Parkerson, Cecil W.	Hot Springs
Pate, C. N.	Hot Springs
*Phillips, James E.	Hot Springs
Porter, W. F.	Hot Springs
*Power, A. R.	Hot Springs
Purdum, E. A.	Hot Springs
*Reed, L. E.	Hot Springs
*Rowland, Driver	Hot Springs
Rowland, J. F.	Hot Springs
Rushing, F. E.	Hot Springs
Scott, Jett O.	Hot Springs
*Scully, F. J.	Hot Springs
Shaw, E. I.	Hot Springs
Short, Z. N.	Hot Springs
Smallwood, R. E.	Arkadelphia
*Smith, E. M.	Hot Springs
*Smith, O. A.	Hot Springs
*Smith, W. K.	Hot Springs
Stell, J. S.	Hot Springs
*Stough, D. B.	Hot Springs
*Strachan, J. B.	Hot Springs
*Tarleton, F. S.	Hot Springs
*Thompson, E. L.	Hot Springs
*Tribble, A. H.	Hot Springs
*Wade, H. K.	Hot Springs
*Wade, H. K., Jr.	Hot Springs
Weil, S. D.	Hot Springs
Wenger, O. C.	Hot Springs
Wilkins, J. S.	Hot Springs
Woods, Paul H.	Hot Springs
*Wright, H. K.	Hot Springs
Wright, Jack	Hot Springs

#### GRANT COUNTY

Cole, C. F.	Prattville
Hope, O. W.	Sheridan
Irvin, Jack	Sheridan
Kelly, O. R.	Sheridan

#### GREENE COUNTY

Blackwood, J. D.	Jonesboro
*Bridges, G. P.	Paragould
Dillman, J. A.	Paragould
*Ellington, W. E.	Paragould
*Garner, A. Dillon	Paragould
Haley, R. J., Jr.	Paragould
†Huddins, J. J.	Paragould
Hutcherson, R. L.	Delaplaine
Kellett, M. A.	Paragould
*Lamb, W. M.	Paragould
*Maddox, A. H.	Paragould
*McKelvey, Earle	Paragould
*Williams, J. M.	Paragould

#### HEMPSTEAD COUNTY

*Branch, J. W.	Hope
Cannon, G. E.	Hope
Gentry, J. E.	McCaskill
Heller, H. G.	Kansas City, Mo.
Lile, L. M.	Hope
*Martindale, J. G.	Hope
*McKenzie, Jim	Hope
Robins, W. F.	Ozan
*Sims, Walter L., Jr.	Hope
*Smith, Don	Hope
*Wilkes, Elbert H.	Hope
*Wright, Geo. H.	Hope

#### HOT SPRING COUNTY

*Barrier, W. F.	Malvern
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*Brown, H. L.	Malvern
*Cole, John W.	Malvern
*Hodges, T. L.	Bismarck
McCray, E. H.	Malvern
*McCray, R. V.	Malvern
*Peters, Claude F.	Malvern

#### HOWARD-PIKE COUNTY

Alford, T. F.	Murfreesboro
Bellew, L. N.	Dierks
Burleson, J. J.	Antoine
Dildy, E. V.	Nashville
Duncan, M. D.	Murfreesboro
Ferguson, F. F.	Nashville
Goforth, A. J., Jr.	Nashville
Gould, W. B.	Glenwood
Harrison, A. Vale	Nashville
Holt, H. H.	Nashville
Jones, W. J.	Glenwood
Junell, C. M.	Mineral Springs
Simpson, W. B.	Nashville
Toland, Wm. H.	Nashville
Waldrop, J. G.	Nashville

#### INDEPENDENCE COUNTY

Barnett, H. C.	Heber Springs
Barnett, J. C.	Heber Springs
Bone, O. L.	Newark
Brown, H. H.	Blackfoot, Idaho
*Calaway, R. L.	Batesville
*Calaway, W. H.	Batesville
Chambers, S. W.	Mountain Home
*Churchill, C. A.	Batesville
Copp, Noel	Calico Rock
*Craig, M. S.	Batesville
*Evans, L. T.	Batesville
Gray, E. M.	Mountain Home
Gray, W. Paul	Batesville
Harris, C. L.	Melbourne
Headstream, J. W.	Birmingham, Ala.
*Hinkle, C. G.	Batesville
*Hooper, Rector	Ancon, Canal Zone
*Jeffery, Paul H.	Bethesda
*Johnston, O. J. T.	Batesville
Jones, W. A.	Los Angeles, Calif.
Junkin, Ruth	Batesville
*Ket, W. J.	Batesville
Landers, Gardner	El Dorado
Matthews, J. T.	Heber Springs
McAdams, V. D.	Cord
*Monfort, J. J.	Batesville
Paschal, Wm. R.	Mountain Home
Robertson, S. N.	Sulphur Rock
Roe, C. E.	Viola
Saltzman, B. N.	Mountain Home
Taylor, C. A.	Mammoth Spring
Weather, J. L.	Salem
Wood, O. S.	Salem
Wyatt, F. Q.	Batesville

#### JACKSON COUNTY

*Best, A. L.	Newport
*Gray, C. R.	Newport
*Harris, M. H.	Newport
*Harris, M. L.	Newport
*Ivy, J. B.	Tuckerman
*Jackson, J. F.	Newport
*Jamison, O. A.	Tuckerman
Kimberlin, K. K.	Tuckerman
*Norris, R. O.	Tuckerman
*Walker, H. O.	Newport
*Williams, Thos. E.	Newport

#### JEFFERSON COUNTY

*Adams, Carl H.	Pine Bluff
*Anderson, C. W.	Pine Bluff
*Bruce, W. H.	Pine Bluff
Capel, C. B.	Pine Bluff
Capel, H. T.	Pine Bluff
*Carruthers, C. K.	Pine Bluff
Causey, H. A.	Pine Bluff
*Clark, O. W.	Pine Bluff
*Cunningham, T. J.	Pine Bluff
*Cunningham, T. J., Jr.	Pine Bluff
*Dickins, R. D.	Pine Bluff
*Ferguson, J. P.	Pine Bluff
Fowler, Arthur	Humphrey
*Fowler, Arthur, Jr.	Pine Bluff
Fowler, H. D.	Humphrey
*Hames, Fred	Pine Bluff
*Hart, James C., Jr.	Pine Bluff
Higinbotham, C. J.	Pine Bluff
*Hundley, Louis K.	Pine Bluff
*Jenkins, J. S.	Pine Bluff
*Lowe, W. T.	Pine Bluff
Luck, B. D., Jr.	Pine Bluff
*Maynard, R. E.	Pine Bluff
*McMullen, E. C.	Pine Bluff
*Monroe, S. C.	Pine Bluff
*Morris, H. J.	Pine Bluff
†Palmer, J. T.	Pine Bluff
*Payne, Virgil	Pine Bluff
*Reed, Enoch F.	Pine Bluff
*Reid, Chas. W.	Pine Bluff
*Russell, A. R.	Pine Bluff
Simmons, Walter H.	Pine Bluff
*Spillyards, J. S.	Pine Bluff
*Talbot, George	Pine Bluff
*Walker, John K.	Pine Bluff
Ward, Herbert W.	Pine Bluff

#### JOHNSON COUNTY

Floyd, John	Oark
Floyd, John	Ozark

Graves, S. M.	Clarksville
*Hardgrave, Geo. L.	Clarksville
*Hunt, Earle H.	Clarksville
*Kolb, J. M.	Clarksville
McCracken, E. A.	Clarksville
Nicholas, J. P.	Hagarville
*Scarborough, Wm. R.	Clarksville
*Shrigley, Guy P.	Clarksville
*Siegel, G. R.	Clarksville

#### LAFAYETTE COUNTY

Armstrong, R. L.	Lewisville
Baker, F. E.	Stamps
Harrison, Robert H.	Lewisville
Keith, A. W.	Stamps
McKnight, J. F.	Bradley

#### LAWRENCE COUNTY

Ball, C. C.	Ravenden
Blaine, Mitchell	Mammoth Spring
Brown, W. W.	Hardy
Cruse, E. J.	Black Rock
Elders, J. B.	Walnut Ridge
Faircloth, Robert S.	Walnut Ridge
†Guthrie, T. C.	Smithville
Hatcher, W. W.	Imboden
Joseph, Ralph	Walnut Ridge
Kendall, W. S.	Cave City
Land, J. C.	Walnut Ridge
Lane, John W.	Imboden
Petty, Tom A.	Rural Hall, N. C.
Tibbels, Chas. D.	Black Rock
Townsend, C. C.	Walnut Ridge

#### LEE COUNTY

Bogart, H. D.	Marianna
Chaffin, C. W.	Moro
Dozier, Floyd	Marianna
Hammer, J. H.	Aubrey
Hays, Wm. C., Jr.	Marianna
McClendon, Mac	Marianna

#### LINCOLN COUNTY

Bailey, B. L.	Star City
*Dale, Robert A.	Star City
Dixon, C. W.	Gould
*Gardner, B. M.	Star City
Kersh, N. B.	Star City
McEntire, Henry	Star City
Wood, G. C.	Grady

#### LITTLE RIVER COUNTY

Davis, Elmer	Foreman
Peacock, Norman	Ashdown
Shelton, J. G., Jr.	Ashdown

#### LOGAN COUNTY

Dickey, A. B.	State Sanatorium
Hederick, A. R.	Booneville
Hederick, Rogers	Booneville
Henry, C. A.	State Sanatorium
Jewell, I. H.	Paris
McConnell, S. P.	Booneville
Nowlin, R. R.	State Sanatorium
Riley, J. D.	State Sanatorium
Slaughter, Pauline K.	Norfolk, Neb.
Smith, Chas. McD.	Paris
Smith, James T.	Paris
Smith, John F.	Paris

#### LONOKE COUNTY

Beaty, S. S.	England
Brewer, J. F.	Kerrs
Crowgey, Wm. B.	Scott
Kelly, R. M.	Lonoke
Southall, S. A.	Lonoke
Ward, O. D.	England
Watson, Asa C.	Benton
Wells, J. B.	Little Rock

#### MILLER COUNTY

Baskett, Roy F.	Texarkana
Burnett, J. W.	Texarkana
Carney, H. M.	Texarkana
Collom, Allan	Texarkana
*Daniel, N. B.	Fort Worth
Frank, C. H.	Texarkana
Fuller, T. E.	Texarkana
Good, L. P.	Texarkana
Harrell, W. B.	Texarkana
Harrison, R. K.	Texarkana
Hibbitts, Wm.	Texarkana
Hughes, Mary Witt	Texarkana
Hunt, Preston	Texarkana
Jones, John W.	Texarkana
Jones, Wm. E.	Texarkana
*Kemp, K. H.	Texarkana
*Kosminsky, L. J.	Texarkana
*Lanier, L. H.	Texarkana
*Little, A. A.	Texarkana
Luton, Edgar F.	Texarkana
Middleton, B. C.	Texarkana
*Murry, H. E.	Texarkana
*Nichols, T. K.	Texarkana
Parson, G. W.	Texarkana
*Pickett, R. W.	Texarkana
Priest, Perry	Texarkana
Roberts, A. W.	Texarkana
*Smith, W. D.	Texarkana
*Spinka, Frances	Texarkana
Stainton, Robert	Texarkana
Stuart, Chas. C.	Texarkana
*Tate, J. B.	Texarkana
*Tasley, Gerald H.	Texarkana
Hyson, Joe E.	Texarkana
Wilhelm, Frieda	Texarkana
Williams, J. F.	Texarkana



**MADISON COUNTY**

Martin, C. J. .... Hindsville  
 Youngblood, Fred .... Huntsville

**MISSISSIPPI COUNTY**

Atkinson, G. S. .... Blytheville  
 Beasley, J. E. .... Blytheville  
 Bloodgett, D. H. .... Luxora  
 Brownson, J. F. .... Blytheville  
 Campbell, J. H. .... Marvell  
 Danner, J. J. .... Armorel  
 Elliott, John .... Blytheville  
 Ellis, N. B. .... Wilson  
 Fairley, Eldon .... Wilson  
 Harwell, C. M. .... Osceola  
 Hubener, L. L. .... Blytheville  
 Hubener, Louis F. .... Blytheville  
 Husband, F. L. .... Blytheville  
 Hutchison, E. L. .... Manila  
 Johnson, I. R. .... Blytheville  
 Massey, L. D. .... Osceola  
 Polk, J. T. .... Keiser  
 Rainwater, W. T. .... Blytheville  
 Rodman, T. N. .... Leachville  
 Saliba, J. A. .... Blytheville  
 Sheddian, W. J. .... Osceola  
 Sims, H. C. .... Blytheville  
 Skaller, M. L. .... Blytheville  
 Turrentine, P. W. .... Osceola  
 Utley, F. E. .... Blytheville  
 Walls, J. M. .... Blytheville  
 Webb, Floyd .... Blytheville  
 Webb, J. J. .... Blytheville  
 Wilson, C. E. .... Blytheville

**MONROE COUNTY**

\*Dalton, M. L. .... Brinkley  
 \*McKnight, C. H. .... Brinkley  
 \*McKnight, E. D. .... Brinkley  
 Mohler, D. A. .... Brinkley  
 Rector, Joe .... Clarendon  
 Stone, H. E., Jr. .... Holly Grove  
 Turner, Roy .... Clarendon  
 Walker, W. L. .... Brinkley

**MONTGOMERY COUNTY**

Gowdy, John M. .... Mount Ida  
 McLean, J. H. .... Caddo Gap  
 Stewart, G. T. .... Mount Ida  
 Watkins, G. E. .... Mount Ida

**NEVADA COUNTY**

Arnold, C. P. .... Prescott  
 Buchanan, A. S. .... Prescott  
 Cox, J. E. .... Rosston  
 Hairston, G. G. .... Prescott  
 Harrell, L. J. .... Prescott  
 Hesterly, J. B. .... Prescott  
 Hirst, O. G. .... Prescott  
 McDaniel, T. W. .... Broughton  
 Pool, W. B. H. .... Rosston  
 Rouse, B. H. .... Prescott

**OUACHITA COUNTY**

\*Byrd, J. E. .... Camden  
 \*Dalton, Perry .... Camden  
 \*Early, C. S. .... Camden  
 Ellis, C. R. .... Malvern  
 \*Glasscock, R. E. .... Bearden  
 Hearnberger, Henry .... Stephens  
 \*Jameson, J. B. .... Camden  
 \*Kenerly, R. C. .... Camden  
 \*Magness, W. C. .... Camden  
 \*McAllister, J. P. .... Camden  
 \*McGill, S. D. .... Camden  
 \*Meek, Tom J. .... Camden  
 \*Miller, John H. .... Camden  
 \*Partee, N. G. .... Camden  
 \*Powell, B. V. .... Camden  
 \*Rhine, T. E. .... Thornton  
 \*Rinehart, J. S. .... Camden  
 \*Robins, R. B. .... Camden  
 Robins, R. R. .... Camden  
 Rushing, J. L. .... Chidester

**PHILLIPS COUNTY**

Blackwood, J. O. .... Morrilton  
 Butterick, O. S. .... Elaine  
 Broach, R. F. .... Texarkana  
 Butts, J. W. .... Helena  
 Capes, B. .... West Helena  
 Chrestman, R. L. .... Helena  
 Connolly, W. B. .... Helena  
 Cox, A. E. .... Helena  
 Ellis, J. B., Sr. .... Albuquerque, N. M.  
 Ellis, W. A. .... Helena  
 Fink, M. .... Helena  
 Henderson, C. W. .... Helena  
 Hossey, N. R. .... Marvell  
 Jones, L. B. .... Helena  
 Kultgen, Edward .... Elaine  
 McCarty, C. P. .... Helena  
 Nicholls, J. W. .... Helena  
 Norton, E. F. .... Marvel  
 Oldham, H. B. .... Marvel  
 Orr, W. R. .... Helena  
 Rightor, H. H. .... Helena  
 Russwurm, W. C. .... Helena  
 Storm, Geo. R. .... Helena  
 Terry, John B. .... Helena

**POLK COUNTY**

Campbell, C. A. .... Mena  
 Lee, F. A. .... Vandervoort  
 †Miers, E. M. .... Mena

Norwood, Frank A. .... Mena  
 Redman, Pierre .... Mena  
 Rogers, Henry N. .... Mena

**POPE-YELL COUNTY**

Berryman, L. D. .... Russellville  
 Blackford, Florence .... Russellville  
 Blackford, Ralph E. .... Russellville  
 Blackford, Roger W. .... Russellville  
 Cale, W. M. .... Atkins  
 Gardner, Ellis .... Russellville  
 Gardner, L. .... Russellville  
 Gillium, A. D. .... Belleville  
 Grace, Kent .... Belleville  
 Henry, J. A. .... Russellville  
 Hood, Robert .... Russellville  
 Hoyt, Jonathan .... Waldron  
 Hunt, E. C. .... Ola  
 Imes, Loren E. .... Russellville  
 Linton, A. C. .... Hector  
 Millard, Roy I. .... Russellville  
 Mobley, Max .... Russellville  
 Montgomery, H. L. .... Gravelly  
 Smith, R. L. .... Russellville  
 Stanford, J. M. .... Russellville  
 Tate, A. B. .... Russellville  
 Teeter, Brooks R. .... Russellville  
 Underwood, E. O. .... Waveland  
 Webb, James W. .... Hector  
 Young, W. O. .... Russellville

**PRAIRIE COUNTY**

Crockett, W. H. .... Benton  
 Gilliam, J. C. .... Des Arc  
 Hill, Roy F., Jr. .... Des Arc  
 Matthews, Travis .... Hazen  
 Parker, W. M. .... DeValls Bluff  
 Porter, T. G. .... Phoenix, Arizona

**PULASKI COUNTY**

\*Aday, J. Leo .... Little Rock  
 Agar, Drew F. .... Little Rock  
 \*Allen, H. R. .... Little Rock  
 Almaden, Philip J. .... Little Rock  
 Anderson, C. C. .... Little Rock  
 \*Anderson, P. R. .... Little Rock  
 \*Arkebauer, C. A. .... Little Rock  
 \*Armstrong, H. M. .... Little Rock  
 Atkinson, Shelby .... North Little Rock  
 Ault, Chas. C. .... Little Rock  
 \*Aultry, D. H. .... Little Rock  
 Aultry, P. G. .... Little Rock  
 Baker, Clark M. .... U. S. Army  
 Banks, Jeff .... Little Rock  
 \*Barrier, L. F. .... Little Rock  
 Beard, Owen W. .... Little Rock  
 \*Beck, R. W. .... Little Rock  
 \*Bennett, B. A. .... Little Rock  
 Bizzell, Ross .... Little Rock  
 Black, M. W. .... Little Rock  
 Blakely, R. M. .... Little Rock  
 Boyle, R. W. .... U. S. Army  
 \*Briggs, B. P. .... Little Rock  
 Brizzolara, A. J. .... Little Rock  
 \*Brooks, C. M. .... Little Rock  
 Brown, Martha M. .... Little Rock  
 \*Brown, T. Duel .... Little Rock  
 Bryant, E. P. .... Little Rock  
 \*Burger, R. A. .... Little Rock  
 Burgess, T. E. .... Little Rock  
 Burns, W. M. .... Little Rock  
 Byrd, L. M. .... Little Rock  
 Calcote, R. J. .... Little Rock  
 \*Caldwell, Robt. .... Little Rock  
 \*Carruthers, F. W. .... Little Rock  
 Cavener, Jesse L. .... Little Rock  
 Cazort, Allen G. .... Little Rock  
 Champion, J. P. .... Little Rock  
 Chappell, Ewin S. .... North Little Rock  
 †Cheairs, D. T. .... Little Rock  
 Chestnutt, C. R. .... Little Rock  
 Chestnutt, C. R., Jr. .... Little Rock  
 \*Choate, H. L. .... Little Rock  
 \*Church, B. L. .... North Little Rock  
 \*Clark, A. C. .... Little Rock  
 \*Clark, Wm. A. .... Little Rock  
 \*Cohen, Louis A. .... Little Rock  
 \*Compton, J. N. .... Little Rock  
 Coon, A. B. .... Little Rock  
 \*Cook, R. C. .... Little Rock  
 Cooper, Wm. G. .... Little Rock  
 Cope, E. P. .... Little Rock  
 Corn, F. A. C. .... Little Rock  
 Corwin, W. C. .... Little Rock  
 \*Cosgrove, K. W. .... Little Rock  
 Craig, M. S., Jr. .... Little Rock  
 Crawford, J. B. .... Little Rock  
 Crawford, S. R. .... Hazen  
 Crawley, Eugene H. .... Little Rock  
 Crone, John T. .... Milford, Ohio  
 Cull, S. T. W. .... Little Rock  
 \*Cullen, P. T. .... Little Rock  
 \*Cummins, Bryce .... Little Rock  
 Cunningham, Albert L. .... Little Rock  
 \*Curtis, A. C. .... Little Rock  
 Darby, Wm. J. .... Nashville, Tenn.  
 Darnall, R. F. .... Texarkana  
 Davis, J. C. .... Little Rock  
 \*Day, E. O. .... Little Rock  
 \*Dean, G. O. .... Little Rock  
 Dibrell, J. R. .... Little Rock

Dildy, Hal .... Little Rock  
 Dishongh, Elizabeth F. .... Little Rock  
 Dishongh, H. A. .... Little Rock  
 Dodge, Eva F. .... Little Rock  
 \*Donaldson, J. K. .... Little Rock  
 \*Dykstra, D. W. .... Little Rock  
 \*Easley, E. J. .... Little Rock  
 Ellis, Ruth E. .... Little Rock  
 Ellison, E. T. .... Little Rock  
 \*Eubanks, R. M. .... Little Rock  
 \*Farris, Guy R. .... Little Rock  
 \*Faust, W. H. .... North Little Rock  
 Fein, Norman N. .... Little Rock  
 Ferguson, R. L. .... Vermillion, S. D.  
 Freedman, Theo. .... Little Rock  
 \*Fulmer, D. W. .... Little Rock  
 Fulmer, Herman R. .... Little Rock  
 \*Fulmer, P. M. .... Little Rock  
 \*Fulmer, S. C. .... Little Rock  
 \*Fulton, Wm. L. .... Little Rock  
 Gann, Dewell .... Benton  
 \*Gay, E. C. .... Little Rock  
 Gordon, Vida .... Little Rock  
 \*Gray, A. F. .... Little Rock  
 \*Gray, Edwin F. .... Little Rock  
 \*Gray, H. F. .... Little Rock  
 †\*Gray, Oscar .... Little Rock  
 Gray, Oscar, Jr. .... Jacksonville  
 \*Gray, John T. .... Little Rock  
 \*Grayson, W. B. .... Little Rock  
 Greutter, J. E. .... Little Rock  
 Growdon, J. H. .... Little Rock  
 \*Hardeman, D. R. .... Little Rock  
 \*Harris, F. W. .... Little Rock  
 Harris, Bobt. P. .... Sarasota, Fla.  
 \*Hayes, C. K. .... Little Rock  
 \*Hayes, J. D. .... Little Rock  
 \*Hayes, J. H. .... Little Rock  
 \*Henry, C. R. .... Little Rock  
 Henry, J. F., Jr. .... Lonoke  
 Henry, R. L., Jr. .... Kansas City, Mo.  
 Herron, John T. .... Little Rock  
 Higgins, H. A. .... Little Rock  
 Hill, Harlan H. .... Little Rock  
 \*Hollenberg, H. G. .... Little Rock  
 \*Hollis, N. T. .... Little Rock  
 Holmes, G. M. .... Little Rock  
 Holmes, H. C. .... Little Rock  
 \*Holt, L. G. .... Little Rock  
 \*Hoover, P. W. .... Little Rock  
 Hundley, John M. .... Memphis, Tenn.  
 \*Hundling, H. W. .... Little Rock  
 \*Hyatt, D. T. .... Little Rock  
 \*Jackson, Geo. W. .... Little Rock  
 Jackson, Robt. H. .... San Angelo  
 \*Jernigan, James P. .... Little Rock  
 \*Johnson, Glenn H. .... Little Rock  
 Johnston, T. G. .... U. S. Army  
 \*Jones, Erner .... Little Rock  
 \*Jones, H. Fay H. .... Little Rock  
 Jones, J. E. .... Little Rock  
 \*Jones, Robt. D. .... Little Rock  
 Jones, W. E., Jr. .... Little Rock  
 Judd, O. K. .... Little Rock  
 Junkin, S. P. .... Little Rock  
 Kahn, Alfred .... Little Rock  
 Kelly, Miles .... Little Rock  
 Kennedy, Howard J. .... U. S. Army  
 Kesling, Jack H. .... Little Rock  
 Kilbury, M. J. .... Little Rock  
 Kilbury, M. J. Jr. .... U. S. Army  
 Kirby, Jesse M. .... Little Rock  
 \*Kolb, A. C. .... Little Rock  
 Kolb, Agnes C. .... Little Rock  
 Kolb, B. T. .... Little Rock  
 \*Kory, R. C. .... Little Rock  
 \*Kozberg, Oscar .... Little Rock  
 Kumpuris, F. G. .... Little Rock  
 \*Lamb, W. A. .... North Little Rock  
 \*Lamon, J. E. .... North Little Rock  
 \*Langston, W. C. .... Little Rock  
 \*Law, R. A. .... Little Rock  
 \*Lawson, Mason .... Little Rock  
 Leidinger, Karl J. .... Little Rock  
 \*Levy, J. S. .... Little Rock  
 Lewis, G. V. .... Little Rock  
 \*Longstreth, Alvin E. .... Little Rock  
 Lyons, V. E. .... North Little Rock  
 \*Mahoney, Paul L. .... Little Rock  
 Mashburn, James D. .... Little Rock  
 Mazzanti, Vincent .... Topeka, Kansas  
 McCaskill, M. E. .... Little Rock  
 \*McCaskill, M. R. .... Little Rock  
 McClain, M. D. .... Little Rock  
 \*McLochlin, R. E. .... Little Rock  
 \*McMillan, Lamar .... Little Rock  
 \*McRae, W. M. .... Little Rock  
 \*Means, Ben D. .... Little Rock  
 Melson, O. C. .... Little Rock  
 Meschan, Isadore .... North Little Rock  
 Miller, Harold N. .... Little Rock  
 \*Morgan, Vern E. .... Little Rock  
 Morris, W. E. .... Little Rock  
 \*Murphey, Pat .... Little Rock  
 Nettleship, Anderson .... Little Rock  
 \*Newbill, James .... Little Rock  
 \*Newman, W. V. .... Little Rock  
 Nisbett, James M. .... Little Rock



Nixon, Ewing ..... Little Rock  
 Nowlin, W. A. .... Roland  
 \*Oates, Chas. E. .... North Little Rock  
 \*Oates, Gordon P. .... Little Rock  
 Ogden, Mahlon D., Jr. .... Little Rock  
 O'Neal, Walter H. .... Little Rock  
 \*Parsons, J. E. .... Little Rock  
 Parsons, V. E. Jr. .... Little Rock  
 †Parsons, W. R. .... Little Rock  
 \*Phillips, Bert L. .... Little Rock  
 Phillips, Sam ..... Little Rock  
 \*Phipps, W. E. .... North Little Rock  
 Pool, Chalmers ..... Little Rock  
 \*Prickett, M. D. .... Little Rock  
 Pringos, Andrew A. .... Little Rock  
 Raley, B. V. .... St. Louis, Mo.  
 Raney, T. J. .... Little Rock  
 \*Reagan, G. W. .... Little Rock  
 \*Reagan, L. D. .... Little Rock  
 \*Reaves, B. J. .... Little Rock  
 \*Reed, C. C., Jr. .... Little Rock  
 \*Reed, E. C., Jr. .... Little Rock  
 \*Rhinehart, B. A. .... Little Rock  
 \*Rhinehart, D. A. .... Little Rock  
 Rhyne, J. T. .... Pine Bluff  
 \*Richardson, W. R. .... Little Rock  
 Richmond, Samuel ..... Little Rock  
 \*Riegler, N. W., Sr. .... Little Rock  
 \*Riegler, N. W., Jr. .... Little Rock  
 Riley, Wm. K. .... Dearborn, Mich.  
 Ritchie, E. J. .... North Little Rock  
 \*Rives, John H. .... Little Rock  
 Roberts, J. N. .... Little Rock  
 Roberts, J. T. .... Little Rock  
 Robinson, B. L. .... Chicago, Ill.  
 \*Rodgers, Clyde D. .... Little Rock  
 \*Rosenbaum, Carl A. .... Little Rock  
 Ross, Robt. W. .... St. Louis, Mo.  
 \*Ross, T. T. .... Little Rock  
 Rothert, Frances C. .... Little Rock  
 Rowen, R. E. .... Little Rock  
 Ruff, Horace E. .... Little Rock  
 \*Sadler, W. L. .... Little Rock  
 \*Samuel, John ..... Little Rock  
 \*Sanderlin, J. H. .... Little Rock  
 Sanford, Sloan M. .... Searcy  
 \*Savin, Jessie E. .... Little Rock  
 Saxon, R. L. .... Little Rock  
 \*Scarlett, W. P. .... Little Rock  
 Scarborough, J. I. .... Little Rock  
 \*Schwander, Howard ..... Little Rock  
 \*Schwarz, W. J. .... Little Rock  
 Sessoms, W. D. .... North Little Rock  
 \*Shipp, A. C. .... Little Rock  
 \*Shipp, Harvey ..... Little Rock  
 \*Shuffield, H. Elvin ..... Little Rock  
 \*Shuffield, J. F. .... Little Rock  
 \*Shukers, C. F. .... Little Rock  
 Simpson, N. Henry, Jr. .... Little Rock  
 Smith, H. H. .... North Little Rock  
 \*Smith, James L. .... Little Rock  
 \*Smith, John M. .... Little Rock  
 \*Smith, John W. .... Little Rock  
 \*Smith, R. T. .... Little Rock  
 \*Smith, W. Meyers ..... Little Rock  
 \*Snodgrass, Wm. A. .... Little Rock  
 \*Sparks, A. R. .... Little Rock  
 \*Spitzberg, Irving J. .... Little Rock  
 Stathakis, John ..... North Little Rock  
 Stern, Howard S. .... Pine Bluff  
 Steinkamp, G. R. .... Little Rock  
 Stewart, Bill D. .... Little Rock  
 Stover, A. R. .... Kingman, Ariz.  
 \*Strauss, A. W., Sr. .... Little Rock  
 \*Strauss, A. W., Jr. .... Little Rock  
 \*Summers, J. A. .... Little Rock  
 \*Switzer, D. M. .... North Little Rock  
 Switzer, D. M., Jr. .... Little Rock  
 Thomas, P. E. .... Little Rock  
 Thomas, Peter ..... St. Louis, Mo.  
 \*Thompson, E. I. .... Little Rock  
 Thompson, G. D. .... Little Rock  
 \*Thompson, R. F. .... Little Rock  
 Thompson, S. B. .... Little Rock  
 Turnbow, R. L. .... El Dorado  
 Turner, Roy J. .... Clarendon  
 \*Wallis, Charles ..... Little Rock  
 Walsh, W. V. .... Little Rock  
 \*Warden, J. R. .... Little Rock  
 Washburn, A. M. .... Little Rock  
 Watkins, John G., Sr. .... Little Rock  
 \*Watkins, John G., Jr. .... Little Rock  
 \*Wassell, J. R. .... Little Rock  
 Watson, Asa C., Jr. .... Hartford, Conn.  
 Watson, C. F. .... Little Rock  
 \*Watson, C. Robert ..... Little Rock  
 Wayman, A. K. .... Little Rock  
 Wayne, J. R. .... Little Rock  
 Webb, Lewis A. .... Little Rock  
 \*Webb, V. T. .... Little Rock  
 \*Weny, N. F. .... Little Rock  
 Weese, W. H. .... Little Rock  
 \*Wickard, C. P. .... Little Rock

#### RANDOLPH COUNTY

Baltz, M. A. .... Pocahontas  
 Brown, J. W. .... Pocahontas  
 Hamill, W. E. .... Pocahontas  
 †Loftis, J. R., Sr. .... Pocahontas

Loftis, J. R., Jr. .... Cleveland, Ohio  
 Loftis, W. O. .... Pocahontas  
 Ryburn, J. W. .... Pocahontas  
 Smith, J. E. .... Reyno  
 Smith, R. O. .... Biggers

#### ST. FRANCIS COUNTY

\*Bogart, C. N. .... Forrest City  
 Burch, W. D. .... Hughes  
 Chaffin, E. J. .... Hughes  
 Cogburn, H. N. .... Forrest City  
 Crowley, C. E. .... Forrest City  
 \*Davidson, J. S. .... Forrest City  
 Franks, R. H. .... Hughes  
 Gray, Henry T. .... Hughes  
 McClendon, H. L. .... Palestine  
 \*McPhail, Geo. T. .... Forrest City  
 Roy, J. M. .... Forrest City  
 Rush, J. O. .... Forrest City

#### SALINE COUNTY

Blakely, M. M. .... Benton  
 Buffington, T. E. .... Benton  
 Jones, C. W. .... Benton  
 Walton, Chas. R. .... Montgomery, Ala.

#### SEARCY COUNTY

Cotton, J. O. .... Leslie  
 Daniel, S. G. .... Marshall  
 Evans, P. L. .... Marshall  
 †Fendley, E. G. .... Leslie  
 Hall, H. J. .... Clinton  
 Leslie, J. O. .... Marshall  
 Moore, Raymond T. .... San Antonio, Texas  
 Moore, W. T. .... Marshall  
 Rogers, W. F. .... St. Joe

#### SEBASTIAN COUNTY

\*Adams, W. F. .... Fort Smith  
 Amis, J. W. .... Fort Smith  
 Benefield, C. E. .... Fort Smith  
 Billingsley, C. B. .... Fort Smith  
 Blair, A. A. .... Fort Smith  
 \*Brooksher, W. R. .... Fort Smith  
 \*Chamberlain, C. T. .... Fort Smith  
 Coffman, J. S. .... Lavaca  
 \*Crigler, R. E. .... Fort Smith  
 \*Dorsey, H. C. .... Fort Smith  
 \*Eberle, W. G. .... Fort Smith  
 \*Faier, S. Z. .... Fort Smith  
 \*Foltz, T. P. .... Fort Smith  
 \*Foster, M. E. .... Fort Smith  
 \*Gates, Stanley M. .... Fort Smith  
 \*Goldstein, D. W. .... Fort Smith  
 \*Hall, C. W. .... Greenwood  
 \*Hawkins, S. W. .... Fort Smith  
 Henry, L. M. .... Fort Smith  
 Henry, Louise M. .... Fort Smith  
 \*Hoge, A. F. .... Fort Smith  
 Hoge, M. B. .... Fort Smith  
 \*Holt, C. S. .... Fort Smith  
 Johnson, Hugh .... Fort Smith  
 Johnson, J. E. .... Fort Smith  
 Jones, E. B. .... Hartford  
 \*Jones, I. F. .... Fort Smith  
 \*Kennedy, Virgil .... Fort Smith  
 \*Koenig, A. S. .... Fort Smith  
 \*Kramer, Ralph G. .... Fort Smith  
 \*Krock, F. H. .... Fort Smith  
 Little, J. E. .... Fort Smith  
 \*Martin, Art B. .... Fort Smith  
 Mendelsohn, E. A. .... Fort Smith  
 \*Moulton, E. C. .... Fort Smith  
 Moulton, Everett C., Jr. .... Fort Smith  
 Moulton, H. .... Fort Smith  
 Olson, John D. .... Fort Smith  
 \*Pride, Ben H. .... Fort Smith  
 Redman, J. W. .... Fort Smith  
 Schirmer, Roy E. .... Fort Smith  
 \*Scott, M. H. .... Fort Smith  
 \*Shearer, F. E. .... Fort Smith  
 \*Shippey, W. L. .... Fort Smith  
 Smith, H. H. .... Fort Smith  
 \*Stevenson, J. E. .... Fort Smith  
 \*Stewart, J. B. .... Fort Smith  
 \*Stubbs, S. P., Sr. .... Fort Smith  
 Stubbs, S. P., Jr. .... Fayetteville  
 Thompson, H. B. .... Fort Smith  
 \*Thompson, J. K. .... Fort Smith  
 Waddell, Pearl B. .... Fort Smith  
 \*Whittaker, L. A. .... Fort Smith  
 \*Wilson, C. L. .... Fort Smith  
 \*Woods, G. G. .... Huntington  
 \*Woods, Wm. M. .... Huntington

#### SEVIER COUNTY

\*Archer, C. A. .... DeQueen  
 Callahan, Leroy .... DeQueen  
 \*Dickinson, R. C. .... Horatio  
 \*Dickinson, Richard B. .... Horatio  
 Dickinson, Rodger C. .... Pasadena, Texas  
 Hanchey, C. C. .... Forrest Park, Ill.  
 Hanchey, C. C. .... Forest Park, Ill.  
 \*Hendricks, J. S. .... DeQueen  
 Jones, Chas. N. .... DeQueen  
 \*Jones, I. G. .... DeQueen  
 Kimball, G. L. .... DeQueen  
 \*Kitchens, C. E. .... DeQueen  
 \*Norwood, M. L. .... Lockesburg  
 Patton, Gerald K. .... U. S. Army

#### UNION COUNTY

\*Burton, George C. .... El Dorado  
 \*Cathey, A. D. .... El Dorado  
 \*Clark, Frank ..... El Dorado  
 \*Clowney, A. R. .... El Dorado  
 Colvin, A. R. .... Strang  
 Colvin, A. R. .... Strong  
 Cooper, James O. .... El Dorado  
 Cullins, J. G. .... Wadsworth, Kansas  
 \*Fincher, L. G. .... El Dorado  
 Handley, W. H. .... El Dorado  
 \*Harper, J. W. .... El Dorado  
 Henley, Paul G. .... Smackover  
 Irby, F. L. .... El Dorado  
 Jones, Gus W., Jr. .... Chicago  
 Jones, Kenneth G. .... Smackover  
 \*Kennedy, C. E. .... Smackover  
 Kitchens, D. K. .... New York, N. Y.  
 \*Levine, David ..... El Dorado  
 \*Mayfield, H. F. .... Huttig  
 \*Mayfield, H. J. .... El Dorado  
 McCall, Daniel ..... Lawson  
 \*McFarland, Louis H. .... Hampton  
 McKinney, J. S. .... Cincinnati, Ohio  
 \*Mitchell, J. G. .... El Dorado  
 \*Moore, B. L. .... El Dorado  
 \*Munn, E. J. .... El Dorado  
 \*Murphy, G. D., Sr. .... El Dorado  
 \*Murphy, G. D., Jr. .... El Dorado  
 \*Murphy, H. A. .... El Dorado  
 \*Muse, P. H. .... Junction City  
 \*Newton, W. L. .... Smackover  
 \*Pinson, J. H. .... El Dorado  
 \*Rainwater, W. S. .... Hampton  
 \*Riley, W. S. .... El Dorado  
 \*Russell, M. V. .... El Dorado  
 Scott, B. F. .... U. S. Navy  
 \*Sheppard, J. K. .... El Dorado  
 \*Sheppard, J. M. .... El Dorado  
 Slaughter, J. W. .... El Dorado  
 \*Thibault, Frank ..... El Dorado  
 Trinca, P. J. .... Fulton, Ky.  
 \*Wharton, J. B., Sr. .... El Dorado  
 \*Wharton, J. B., Jr. .... El Dorado  
 \*White, D. E. .... El Dorado

#### WASHINGTON COUNTY

Alexander, Gilbert ..... Aspenwall, Pa.  
 \*Baggett, Jeff ..... Prairie Grove  
 Brizzolara, Chas. M. .... Fayetteville  
 Bunch, W. L. .... USPHS  
 Butt, W. J. .... Fayetteville  
 Dorman, J. W. .... Springdale  
 \*DeLaney, Jos. P. .... Fayetteville  
 Ellis, E. F. .... Fayetteville  
 \*Fowler, W. A. .... Fayetteville  
 Gilbert, A. A. .... Fayetteville  
 Harrison, A. J. .... Springdale  
 \*Hathcock, Alfred ..... Fayetteville  
 \*Hathcock, Preston ..... Fayetteville  
 \*Hathcock, P. L. .... Fayetteville  
 Hoge, S. F. .... Fayetteville  
 \*Huntington, R. H. .... Fayetteville  
 Lesh, Ruth Ellis ..... Fayetteville  
 Lesh, V. O. .... Fayetteville  
 \*McAllister, Max F. .... Fayetteville  
 \*Miller, R. W. .... Fayetteville  
 Mock, W. H. .... Prairie Grove  
 \*Ogden, Fred ..... Fayetteville  
 Paddock, C. S. .... Fayetteville  
 \*Richardson, Fount ..... Fayetteville  
 Riggall, Cecil ..... Prairie Grove  
 †Sisco, C. P. .... Springdale  
 \*Sisco, Friedman ..... Springdale  
 Stocker, Wm. J. .... Fayetteville  
 Weddington, Ralph E. .... Fayetteville

#### WHITE COUNTY

Abington, E. H. .... Beebe  
 Adair, T. L. .... Bald Knob  
 Allbright, S. J. .... Searcy  
 Burrow, Thomas E. .... Carlisle  
 Dodd, Wm. Carroll ..... Bald Knob  
 Dunklin, A. J. .... Searcy  
 Edwards, Hugh R. .... Searcy  
 Emerson, A. G. .... Bald-Knob  
 Felts, W. R., Sr. .... Judsonia  
 Felts, W. R., Jr. .... Washington, D. C.  
 Hawkins, M. C., Jr. .... Searcy  
 Hudgins, A. H. .... Searcy  
 Hudgins, P. T. .... Searcy  
 Kinley, James D. .... Beebe  
 Kolb, Wm. Payton ..... North Little Rock  
 Peeler, C. M. .... Pangburn  
 Rodgers, P. R. .... Searcy  
 Sloan, D. W. .... Beebe  
 Sloan, J. R. .... Garner  
 Spain, A. L. .... Letonia  
 Wilson, W. H. .... Griffithsville

#### WOODRUFF COUNTY

Brewer, E. F. .... Augusta  
 Dungan, C. E. .... Augusta  
 Evans, R. H. .... Chatfield  
 Maguire, F. C. Sr. .... Augusta  
 Maguire, F. C., Jr. .... Augusta  
 Morris, J. W. .... McCrory  
 Napper, Geo. S. .... McCrory  
 Rushing, F. E. .... Augusta  
 Williams, W. J. B. .... Cotton Plant





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LITTLE ROCK, ARK.**



payroll which but an hour ago old John, the porter, unescorted, carried from the railroad station to the bank in a small handbag.

November 4th. In today's general confusion, it is quite apparent that "the little man" did it all by himself and deserves full credit and opportunity to make good in the job.

November 5th. Seldom have so many known so much that was incorrect.

November 8th. Tonight privileged to act as co-host with Earle Hunt for some fifty colleagues honoring Charlie Holt who now takes himself away from the cares of active medical practice for these forty years to spend another forty with his grandchildren and farms, a contented life as is surely due one who has labored well in medicine.

### VETERANS ADMINISTRATION FEE GUIDE SCHEDULES

At their January, 1948, meeting, the Central Office Professional Service Group recommended that a letter be prepared by the chief medical director to the American Medical Association, explaining the reason for establishing a fee guide schedule and outlining the procedure by which the fees were determined.

Accordingly, on April 27, 1948, the chief medical director addressed a communication to Dr. Morris Fishbein, editor of the Journal of the American Medical Association, containing the above information. This was published as an open letter in the May 22, 1948, issue of the Journal of the American Medical Association. For the benefit of those doctors who did not get the opportunity to see it, the Journal is reprinting the text.

"Dear Dr. Fishbein:

"It has come to my attention that considerable misunderstanding has developed throughout the medical profession concerning the establishment of fees for medical services to be paid private physicians participating in the so-called 'Home Town Medical Care Program for Veterans.' It has been contended that the Veterans Administration has arbitrarily established a fee schedule which represents the maximum amount which may be paid for any given service and which is, in effect, a national fee schedule. It has also been contended that the various state Medical Societies and other interested groups were not consulted when this fee schedule was adopted.

"In order to clear up any misunderstanding regarding this matter, it is desired to emphasize that my predecessor, Dr. Paul R. Hawley, had no intention at any time of establishing a national schedule of fees, nor do I contemplate doing so. However, the fee schedules originally submitted by the various state Medical So-

cieties, when the 'Home Town Medical Program' was inaugurated, varied so widely in format, terminology, and fees for similar or identical services, that it was deemed advisable to establish a uniform fee schedule format and to set up tentative fees which could be used as a guide by the various state Medical Societies when submitting their proposals for the furnishing of medical care to veterans.

"This uniform fee schedule format was formulated by the Professional Group of National Consultants to the Chief Medical Director. This group, representing the various specialties in medicine and surgery, is composed of eminent physicians from all parts of the country. Tentative fees were set up in the format after a careful analysis of pre-paid medical care plan, workmen's compensation and insurance fee schedules, and also the fee schedules in effect in the various states having agreements with the Veterans Administration. As was to be expected, considerable variation occurred in the fee schedules reviewed.

"The Professional Group of National Consultants made every effort to arrive at fees that were considered to be within reasonable limits and which would, as nearly as possible, allow a uniform provisional fee schedule for use as a guide in facilitating and expediting the preparation of agreements between state Medical Societies and the Veterans Administration.

"Further attempt was made to provide for elasticity in the charges for certain operations or other services which seemed to evoke more than average contention by listing the minimum and maximum amounts considered equitable. These items bear the notation 'AA,' which indicates that the fee for the given service is to be determined by arbitration and agreement between the Veterans Administration and the Medical Society concerned.

"May I reiterate that the Veterans Administration fee schedule format is in no sense to be construed as an arbitrary or national fee schedule. Furthermore, it is subject to periodic review and such modification as conditions may indicate.

"If it meets with your approval, I would appreciate it very much if you could possibly arrange to publish this as an open-letter in the Journal of the American Medical Association. I should like this to reach all of the physicians throughout the country, and I know of no better way to do it than through the Journal.

"Very truly yours,

"Paul B. Magnuson,

"Chief Medical Director"



# TUBERCULOSIS ABSTRACTS

## *A Review for Physicians*

ISSUED MONTHLY BY THE NATIONAL TUBERCULOSIS ASSOCIATION

### THE DIAGNOSIS OF PULMONARY TUBERCULOSIS

THE CONTROL of pulmonary tuberculosis depends on the early diagnosis, isolation and treatment of the active cases. Nothing has been added to our knowledge in recent years to change this fundamental fact. In its early stage, tuberculosis has no characteristic symptoms and no significant physical findings. X-ray examination is necessary for its detection.

It is important to place pulmonary tuberculosis near the top of the list of diagnostic possibilities in cases giving a history of nervousness, digestive disturbance, loss of weight, productive cough, and pulmonary hemorrhage. When the disease is accompanied by such symptoms it is usually easy to find tubercle bacilli in the sputum and chest films show extensive infiltration and cavitation. Such patients still make up a large majority of those admitted for sanatorium treatment. Extensive surgical procedures are frequently required for permanent arrest of the infection. Treatment periods run to two and three years with significant mortality rates. The patient with arrested advanced disease is a handicapped individual whose rehabilitation offers further problems. Reactivation of the infection in later years occurs with disappointing frequency. Everyone around such a patient has been exposed to tubercle bacilli for weeks or months. The disease perpetuates itself in this way.

The early case offers a pleasant contrast to the above picture. There has been little opportunity for spread of infection and arrest of the disease can be achieved much more frequently with shorter periods of treatment. When collapse therapy is necessary the simpler procedures are usually sufficient. The residual handicap is slight and recurrence of active disease in later life is exceptional.

It is therefore of basic importance in the diagnosis of pulmonary tuberculosis to find it in the early stages. Failure in early diagnosis has often occurred because physicians had a low index of suspicion of its presence. It is not unusual for the first search for tuberculosis to be made at the suggestion, or even at the insistence, of the patient. At other times tuberculosis may

have an acute onset and advanced disease is discovered soon after the first symptoms.

However, the majority of cases of pulmonary tuberculosis develop slowly. Symptoms are absent or so slight that the individuals seldom go to doctors and their examination must be brought about by education and community endeavor. When patients seek medical advice the diagnosis of pulmonary tuberculosis becomes a direct professional responsibility which can be met only by considering the possibility of tuberculosis in every patient. The private physician has been a leader in tuberculosis case finding in the past. Routine methods will be required to maintain this position in the face of the decreasing morbidity of the disease.

Misplaced confidence in physical examination is another common cause for delay in the discovery of pulmonary tuberculosis. Too much stress cannot be placed on the limitations of physical diagnosis. In almost every case of early or latent pulmonary disease, percussion and auscultation are so inadequate as to be practically a waste of time. Doctors continue to be surprised at the extent of pulmonary lesions as shown by X-ray examination. Most minimal and many advanced cases of active pulmonary tuberculosis would easily be missed in even a careful physical examination.

There are two methods of screening out the few cases without depending on symptoms and physical findings. These are the tuberculin test and the X-ray examination of the chest. One or the other should be used routinely. The chest film appeals to most doctors because it also reveals cardiac and other pulmonary abnormalities at once. These advantages have led to the present campaign for X-ray examination of all hospital admissions. In office practice the



tuberculin test is very helpful as it takes little time. A positive reaction indicates previous exposure to tuberculosis and is an indication for proceeding with X-ray examination. [Another screening method for physicians in general practice is the use of the fluoroscope. If the fluoroscope shows suspicious findings, the patient can then be tuberculin tested and a chest X-ray made—Author's note.]

The patients with suspicious X-ray shadows are found by these screening methods. Evaluation of the film findings in each instance requires a complete history and careful clinical study including a tuberculin test. For practical purposes a negative tuberculin reaction rules out active tuberculosis.

It is necessary not only to determine the presence of tuberculosis, but also the degree of activity of the lesion. Recovery of tubercle bacilli from pulmonary secretions gives absolute proof of active disease. Culture or guinea pig inoculation of one or more fasting gastric specimens may be required in the absence of a productive cough. Serial chest films are always more helpful than any single examination. An unstable tuberculous lesion, even though retrogressive, must be considered active.

The search for pulmonary tuberculosis has been greatly stimulated by the practical application of small film photofluorography. This trend will probably continue with community and industrial surveys and with the study of hospital admissions. All physicians will be having these chest X-ray problems brought to their attention. Tuberculosis will be outnumbered by other abnormalities of the lungs, mediastinum and cardiovascular system. More frequent opportunities will be available for early diagnosis of malignant tumors, especially bronchogenic carcinoma. Here, everything depends on prompt referral for surgical exploration and resection.

The Diagnosis of Pulmonary Tuberculosis, George H. Vernon, M.D., Illinois Medical Journal, December, 1947.

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## BOOK REVIEW

**Surgical Disorders of the Chest—Diagnosis and Treatment:** By J. K. Donaldson, B.S., M.D., F.A.C.S., Associate Professor of Surgery and in Charge of Thoracic Surgery, University of Arkansas School of Medicine, Little Rock, Arkansas. Lea & Febiger, Philadelphia, 1947.

This book is the second edition of Dr. Donaldson's manual on disorders of the chest. It is thoroughly revised and there are many additions and new material that were not present in the first edition. There is an

adequate and up-to-date bibliography and 145 good illustrations, many of them of distinct practical value, in the book which is a small and easily handled volume of 485 pages.

Much of the new work present in this edition is the result of recent advances in chest surgery. The work of Blalock and of Potts on congenital disorders of the heart, as well as the work cited in the previous edition of Gross, receives attention here. Traumatic hemothorax and its treatment by decortication receive attention and a color plate shows the technic of removing the pseudomembrane following an organized hemothorax. The work of Harken on the removal of foreign bodies from the heart, which was developed during World War II is described.

It would seem to this reviewer that this is the best up-to-date book on the surgery of the chest. It is indeed surprising that with many advances in chest surgery during the past twenty years so few books on this subject have appeared. It is quite probable that the reason for this is that the advances are so new that the men who are actually making them are too busy working out new technics to have time to write them up in the form of a textbook. Dr. Donaldson has wisely stepped in and written a book which summarizes these new developments as well as previous knowledge concerning chest surgery. This book can be recommended to all of the readers of this journal. (Quarterly Review of Surgery, May 1948, Vol. 5, No. 2, P. 353.)

**Practice of Allergy:** The C. V. Mosby Co., originally compiled by Warren T. Vaughan and recently revised by J. Harvey Black is in itself a library of Allergy.

In spite of its formidable size, 1074 pages without bibliography or index, the logical arrangement of subject matter, the manner presented, and the type itself all contribute readability. The complete index makes readily available the best information we have on any phase of allergy and its kindred subjects.

The names of the authors are the guarantee of reliability. Dr. Vaughan and Dr. Black are both pioneers in allergy. Each has made great original contributions and has had a breadth of experience unusual for one man. Little of worth was omitted from the original book and certainly nothing was lost by revision.

This work is not recommended as a text for medical schools. It is too voluminous. For the student who is particularly interested in allergy, and for the practitioner however it is unequalled.





**PERSONALS AND NEWS ITEMS**

T. J. Raney, Little Rock, has been elected a fellow of the American College of Surgeons.

Charles Smith, Paris, spent a recent vacation in North Carolina.

E. C. Moulton, Jr., is now associated with his father, E. C. Moulton, in the practice of ophthalmology at 205 Merchants Bank Building, Fort Smith.

Miles F. Kelly, North Little Rock, has been elected chairman of the Greater Little Rock Committee on Mentally Retarded Children.

Diagnostic cancer clinics under the auspices of the Arkansas Division, American Cancer Society, and the respective county medical societies were conducted during October at Clarksville, Dr. D. W. Goldstein and W. R. Brooksher; at Eureka Springs, by T. P. Foltz and D. W. Goldstein, and at Ozark, by S. W. Hawkins and J. B. Stewart.

Dr. and Mrs. H. E. Murry, Texarkana, attended the Miami session of the Southern Medical Association and then visited Havana and Nassau.

The following attended the recent Chicago session of the American Academy of Ophthalmology and Otolaryngology: Fred Odgen and R. H. Huntington, Fayetteville; L. Gardner, Russellville; Virgil Payne, L. K. Hundley, Pine Bluff; Gardner Landers, El Dorado; Murphy Henry, S. Z. Faier, E. C. Moulton and E. C. Moulton, Jr., Fort Smith, and John Smith, Raymond Cook, K. W. Cosgrove, Paul L. Mahoney, R. J. Calcote and W. J. Schwarz, Little Rock.

John D. Olson, Fort Smith, attended the San Francisco session of the American College of Surgeons and was accepted in fellowship.

A diagnostic cancer clinic under the auspices of the Arkansas Division, American Cancer Society and the Ouachita County Medical Society was conducted at Camden October 14th by Fred Hames, Pine Bluff; D. E. White, El Dorado; John H. Wilson, Magnolia, and W. C. Cooper, Little Rock.

The following attended the Miami session of the Southern Medical Association: Hoyt R. Allen, Little Rock; J. R. Barnett, Arkadelphia; E. H. Crawley, Little Rock; L. T. Evans, Batesville; R. S. Faircloth, Walnut Ridge; Alan A. Gilbert,

Fayetteville; C. P. Harris, Jonesboro; A. F. Hoge, Fort Smith; P. W. Hoover, Little Rock; L. H. McDaniel, Tyronza; C. H. Reagan, Marked Tree; W. A. Reilly, Little Rock; Fount Richardson, Fayetteville; J. T. Roberts, Little Rock, and J. E. Stevenson, Fort Smith.

Dr. and Mrs. D. W. Goldstein, Fort Smith, spent a recent vacation at Edgewater Gulf, Mississippi.

**MARRIED**—At Fort Smith, on September 5th, Dr. H. B. Thompson and Miss Elizabeth Verfurth, both of Fort Smith.

H. Fay H. Jones, Little Rock, attended the recent session of the Southwestern Branch, American Urological Association, in Saint Louis.

The following have been elected to fellowship in the American College of Surgeons: Robert D. Dickins, Pine Bluff; Major H. Harris, Newport; Karlton H. Kemp, Texarkana; J. J. Monfort, Batesville; John D. Olson, Fort Smith; T. J. Raney, Little Rock; Paul T. Stroud, Jonesboro, and Robert Watson, Little Rock.

J. H. Keeling is now associated with Harvey Shipp in the practice of general surgery at 441 Donaghey Building, Little Rock.

The First Councilor District Medical Society met in Jonesboro November 4th for the following program: "Appendicitis Complicating Pregnancy," A. D. Garner, Paragould; "The Present Status of Chemotherapy," M. O. Peeler, Jonesboro, and "Latest Developments in Cancer," Ralph Braund, Memphis.

J. H. McCurry, Secretary.

S. W. Hawkins and J. B. Stewart, Fort Smith, conducted a diagnostic cancer clinic at Ozark November 10th under the joint sponsorship of the Franklin County Medical Society and the Arkansas Division, American Cancer Society.

J. B. Wharton, El Dorado, attended the Los Angeles session of the American College of Surgeons and spent a vacation on the west coast during October.

W. M. Woods addressed the Mansfield Health Council November 3rd.

Ellis Gardner, Russellville, has sailed to India where he will spend five months in eye surgery.



## PROCEEDINGS OF SOCIETIES

The Pulaski County Medical Society was addressed recently by Pearl Waddell and A. S. Koenig, Fort Smith, on "The Erythroblastic Infant," and by John D. Olson, Fort Smith, "Some Problems of Gastric Surgery."

The Fourth Councilor District Medical Society met in dinner session at Monticello October 18th for the following program: "Responsibility of Organized Medicine to the Indigent Patient," Euclid M. Smith, Hot Springs National Park, and "Your Congressman as He Sees Medicine in the Future," Hon. W. F. Norrell.

At a meeting held in Forrest City October 11th, the Cross and Saint Francis County Medical Societies voted to merge as a Cross-Saint Francis County Medical Society. The following officers were elected: Thos. Wilson, president; H. N. Cogbill, vice-president, and J. O. Rush, secretary-treasurer. The society will meet monthly alternating in the two counties.

The Benton County Medical Society met in dinner session at Bentonville October 14th, J. A. Rollow presenting a journal review on surgery.

Prairie County Medical Society has elected the following officers: President, W. M. Parker; vice-president, Travis Matthews; secretary-treasurer, J. C. Gilliam; delegate, J. C. Gilliam, and alternate, Roy F. Hill.

I. F. Jones, R. G. Kramer and W. R. Brooksher, Fort Smith, conducted a diagnostic cancer clinic at Paris October 27th under the auspices of the Logan County Medical Society and the Arkansas Division, American Cancer Society.

Hoyt R. Allen, Little Rock, has been elected chairman, Section on Proctology, Southern Medical Association.

The Arkansas Society for Pediatrics was formed at the recent postgraduate session held at the University of Arkansas School of Medicine with Barney P. Briggs, Little Rock, as president; A. A. Little, Texarkana, vice president, and James T. Rhyne, Pine Bluff, secretary-treasurer. The purpose of the organization is to further interest in the care of the children in the state and membership is open to all physicians interested in pediatrics. Physicians desiring to join the organization are invited to

write Dr. J. T. Rhyne, 600 West Sixth Avenue, Pine Bluff, Arkansas.

Dr. and Mrs. John H. Miller entertained the members of the Ouachita County Medical Society with a turkey dinner at their home in Camden November 4. An interesting program was given as follows: "Sex Hormones in Obstetrics and Gynecology," Charles Henry, Little Rock; "Comments on the National Health Assembly," Mr. Sid Wrightsman, Ft. Smith, and "Military Medical Personnel Requirements Now and Comments on Emergency Medical Care," Mr. Robert Potter, New York, consultant to surgeon general.

R. B. Robins, M.D., secretary.

The Arkansas Regional Meeting of the American College of Physicians was held in Hot Springs National Park October 30th with the following governors of the college present: Arkansas, A. A. Blair, Fort Smith; Mississippi, John G. Archer; Tennessee, W. C. Chaney; Kansas, H. H. Jones; Missouri, R. A. Kinsella, and Oklahoma, W. Langston. Among the speakers were: Chas. T. Chamberlain, Fort Smith, "Hemochromatosis—Case Report of a White Female Without Diabetes Mellitus"; Wm. A. Reilly, Little Rock, "Adrenal Cortical Syndrome in Children," and P. J. Almaden, Little Rock, "Antibiotic Treatment of Pertussis."

The First Councilor District Medical Society has elected the following officers: A. D. Garner, Paragould, president; F. E. Utley, Blytheville, vice president, and J. H. McCurry, Cash, secretary-treasurer.

The Benton County Medical Society met in dinner session at Lake Atalanta, Rogers, November 11th, for the following program: "The Evils of Eating Too Much and What to Do About It," W. Roland Langston, Springfield, Missouri.

Geo. M. Love, secretary.

The Sebastian County Medical Society was addressed November 9th by Carl L. Wilson on "The Etiology of Epididymitis and its Relationship to Trauma."

J. K. Thompson, secretary.



## ARKANSAS MEDICAL SOCIETY 1948-1949

EXECUTIVE OFFICE—610 First National Bank Building,  
Fort Smith, Arkansas.

OFFICE OF THE EXECUTIVE SECRETARY—310 Pro-  
fessional Building, Fort Smith, Arkansas.

MEETING PLACE—Robinson Memorial Auditorium, Little  
Rock, April 14-16, 1949.

### Officers

PRESIDENT—P. W. Lutterloh.....Jonesboro  
PRESIDENT-ELECT—Euclid M. Smith.....Hot Springs  
FIRST VICE-PRESIDENT—Charles R. Henry.....Little Rock  
SECOND VICE-PRESIDENT—J. O. Rush.....Forrest City  
THIRD VICE-PRESIDENT—Thos. P. Foltz.....Fort Smith  
TREASURER—Paul L. Mahoney.....Little Rock  
SECRETARY—W. R. Brooksher.....Fort Smith

### Councilors and Councilor Districts

JOHN H. WILSON, Chairman, Magnolia

First District—Clay, Crittenden, Craighead, Greene  
Lawrence, Mississippi, Poinsett and Randolph counties.  
L. H. McDaniel, Tyronza. Term of office expires 1949.

Second District—Clebune, Fulton, Independence, Izard,  
Jackson, Sharp, Stone and White counties. M. C.  
Hawkins, Jr., Searcy. Term of office expires 1950.

Third District—Arkansas, Cross, Lee, Monroe, Phillips,  
Prairie, St. Francis and Woodruff counties. S. A.  
Drennen, Stuttgart. Term of office expires 1949.

Fourth District — Ashley, Bradley, Chicot, Cleveland,  
Desha, Drew, Jefferson and Lincoln counties. L. K.  
Hundley, Pine Bluff. Term of office expires 1950.

Fifth District—Calhoun, Columbia, Dallas, Lafayette,  
Ouachita and Union counties. J. H. Wilson, Mag-  
nolia. Term of office expires 1949.

Sixth District—Hempstead, Howard, Little River, Miller,  
Nevada, Pike, Polk and Sevier counties. R. C. Dick-  
inson, Horatio. Term of office expires 1950.

Seventh District—Clark, Garland, Hot Spring, Mont-  
gomery and Saline counties. L. G. Martin, Hot Springs.  
Term of office expires 1949.

Eighth District—Conway, Faulkner, Grant, Lonoke, Perry,  
Pope, Pulaski, Van Buren and Yell counties. Ellery C.  
Gay, Little Rock. Term of office expires 1950.

Ninth District—Baxter, Boone, Carroll, Marion, Newton  
and Searcy counties. D. L. Owens, Harrison. Term  
of office expires 1949.

Tenth District—Benton, Crawford, Franklin, Johnson, Lo-  
gan, Madison, Sebastian, Scott and Washington coun-  
ties. Earle H. Hunt, Clarksville. Term of office ex-  
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### WOMAN'S AUXILIARY NEWS

The Pulaski County Medical Auxiliary held its first 1948-49 meeting October 20, 1948, in the Junior League House, Mrs. Carroll F. Shukers, president, presiding. Mrs. Ladd Davies gave an informal talk on her experiences in South America.

Mrs. Shukers has appointed the following committees to work with her: Program, Mrs. J. Harry Hayes, chairman, with Mrs. Phillip T. Cullen; Membership, Mrs. Charles Henry, chairman, with Mrs. Gilbert Dean; Entertainment, Mrs. W. G. Cooper, Jr., chairman, with Mrs. John M. Smith, Mrs. T. D. Brown, Mrs. D. W. Dykstra, Mrs. Barney Briggs, Mrs. Robert F. Thompson, Mrs. Howard M. Armstrong, Mrs. Hoyt Allen, Mrs. Robert Watson, and Mrs. J. K. Donaldson; Visiting, Mrs. Joe H. Sanderlin, chairman, with Mrs. B. A. Bennett; Medical Student's Wives, Mrs. A. R. Sparks, chairman, with Mrs. Vern Morgan; Student Loan Fund, Mrs. Charles E. Oates, chairman, with Mrs. Homer A. Higgins, Mrs. Mason G. Lawson, Mrs. Joe H. Sanderlin, Mrs. W. C. Langston, and Mrs. C. E. Witt; Public Relations, Mrs. Ben Means, chairman, with Mrs. J. R. Warden; Student Nurse Friend, Mrs.

Alvin Longstreth, chairman, with Mrs. Howard Armstrong; Cancer Control, Mrs. Lamar McMilling, chairman, and Mrs. James Newbill; Sewing Committee, Mrs. Oscar Gray, Sr., chairman, with Mrs. W. C. Langston, Mrs. W. A. Reilly, Mrs. Homer A. Higgins, Mrs. Charles E. Oates, and Mrs. Anderson Nettleship; Doctor's Day, Mrs. Gordon Oates, chairman, with Mrs. G. R. Farris, Mrs. Robert D. Jones, and Mrs. Edwin F. Gray; Delegates to City Federation, Mrs. C. E. Witt and Mrs. Charles E. Oates; Bulletin & Hygeia, Mrs. Bert L. Phillips, chairman, with Mrs. N. W. Riegler, Jr., Mrs. J. Donald Hayes, and Mrs. Ross Bizzell; Constitution and By-Laws, Mrs. Mason G. Lawson, chairman, and Mrs. J. B. Crawford; Finance, Mrs. V. T. Webb, chairman, with Mrs. Harvey Shipp; Memorial, Mrs. C. W. Garrison, chairman, with Mrs. J. P. Runyan; Telephone, Mrs. E. Lloyd Wilbur, chairman, with Mrs. Estes Allen, co-chairman, and Mrs. Leo Aday, Mrs. N. T. Hollis, Mrs. A. C. Clark, Mrs. Daniel H. Autry, Mrs. W. C. Langston, Mrs. E. C. Reed, Jr., Mrs. Ellery Gay, Mrs. C. M. Brooks, Mrs. Jerome Levy, Mrs. John R. Wassell, Mrs. A. M. Washburn, Mrs. W. A. Snodgrass, Jr., Mrs. James Jernigan, Mrs. P. R. Anderson, Mrs. R. A. Burger, Mrs. Walter H. Faust, and Mrs. C. C. Reed, Jr.; Legislation, Mrs. D. W. Dykstra, chairman, with Mrs. Candler K. Hayes; Nursing Relations, Mrs. Fred Harris, chairman, with Mrs. Grady Reagan, Mrs. R. M. Eubanks, Mrs. Oscar Gray, Sr., and Mrs. A. C. Clark.

The board of the Woman's Auxiliary to the Arkansas Medical Society met October 25, 1948, at 10:30 a. m. at the Hotel Marion, Little Rock, with twenty-nine members present.

The meeting was called to order by the president, Mrs. Mason G. Lawson of Little Rock. Mrs. L. R. McMillin of Little Rock, secretary, read the minutes of the last board meeting held in April after the state meeting. Mrs. V. T. Webb of Little Rock, treasurer, gave her report.

All officers, county presidents, district councilors and committee chairmen were called upon for reports. Special emphasis was placed upon legislation by Mrs. Howard Stern of Pine Bluff. She urges every physician's wife to watch medical legislation very closely this year and to be prepared to vote.

The meeting was followed by a luncheon in the Coach Room of the Hotel Marion. Another board meeting will be held in January.

Emily F. Donaldson,  
State Publicity Secretary.



JAN 18 1949

University of California

# The JOURNAL OF THE ARKANSAS MEDICAL SOCIETY

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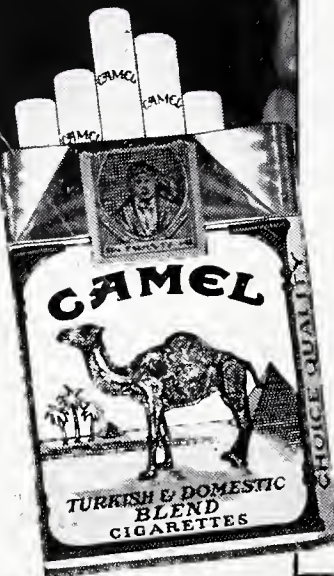


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# The JOURNAL

## OF THE ARKANSAS MEDICAL SOCIETY

PUBLISHED MONTHLY UNDER DIRECTION OF THE COUNCIL

Vol. XLV

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[Vol. XLV, No. 8]

### BRONCHIECTASIS \*

D. HARVEY SHIPP, M.D.

Little Rock

Rubin defines bronchiectasis as a condition characterized by dilatation and usually infection of the bronchi. Bronchiectasis is the most common chronic non-tuberculous lung disease and is second in frequency only to tuberculosis among all chronic lung diseases. Bronchiectasis is often symptomless for long intervals or may be regarded by the patient as a simple bronchitis. It is frequently associated with tuberculosis, suppurations, pneumoconiosis, and bronchogenic neoplasms in which instances the presence of the dilated bronchi are a secondary consideration unless the condition causes severe symptoms.

Bronchiectasis may be congenital but is more often acquired. At one time Sauerbruch stated that 80% of all cases of bronchiectasis was congenital. Subsequent observations have relegated this statement to the background. Congenital air cysts of the upper lobes have frequently been classed as congenital saccular bronchiectasis, yet occur in the periphery of the lung where there is little relationship between the bronchi and the air spaces. Adams and Churchill have pointed out the frequency of sinusitis and bronchiectasis in cases of transposition of the viscera. The occurrence of bronchiectasis with cystic fibrosis of the pancreas is another bizarre combination found in new born and young infants. Dorothy Anderson and others have pointed out this condition as a clinical entity. Neuhauser has also shown the marked relationship between nutritional deficiencies and severe bronchial changes with obstructive emphysema, fibrosis, atelectasis, and staphylococcus infections.

The acquired form of bronchiectasis is the most frequent type encountered. There probably are many factors concerned in the production of bronchiectatic changes, namely, bronchial obstruction, infection, atelectasis and secretory

pressure, compensation, sinusitis, and pulmonary fibrosis.

Bronchial obstruction plays an important role in the evolution of bronchiectasis. (1) Atelectatic areas often reveal bronchiectasis changes when filled with radioopaque material. (2) Rapid return to normal of dilated bronchi when obstruction of short duration is relieved. (3) The surprising lack of severe fibrosis and pleuritis in many bronchiectatic lobes removed surgically. (4) The constancy of gross dilatations observed distal to long standing bronchial obstruction. (5) The experimental production of bronchiectasis by bronchial obstruction.

The factor of infection is also important but is more difficult to demonstrate. In only a few cases of bronchiectasis is infection absent. Raic, Boyd, Warner, Diamond and Loom, et al., have shown that the onset of bronchiectasis following pneumonia, bronchopneumonia, scarlet fever, and whooping cough is 59 to 85% of bronchiectatic children studied. The frequency of recurring bronchopneumonia in early childhood is of extreme importance in producing as well as resulting from bronchiectasis.

Granting that obstruction and infection prepare the ground for bronchiectasis, it fails to explain why the same elements cause bronchitis in one, bronchopneumonia in another, and bronchiectasis in a third. This problem can not be explained by means of atelectasis and secretory pressure from within. Bronchi have been occluded sufficiently long for changes of this type to achieve maximum damage yet the bronchi return to normal when the obstruction is relieved. If secretory pressure were a major factor this would not occur.

Bronchial obstruction with inadequate drainage, atelectasis, and infection provides the situation for the development of a bronchiectasis. Destruction of the alveolar spaces, bronchioles, and fibrosis of the intermediate bronchi, create an inelastic segment of the lung which is constantly submitted to rapidly changing intrathoracic pressure. Since the larger bronchi can not

\* Read before the Seventy-second Annual Session, Arkansas Medical Society, Little Rock, April 16, 1948.



give way, dilatation of the intermediate bronchi is logical from a structural as well as a compensatory standpoint. It is well known that lingular bronchiectasis follows removal of left lower lobe. This may be explained on the basis of compensatory dilatation provided infection and bronchial changes preexisted in this segment. That it does preexist is probable since bronchiectasis, once established, remains limited to the involved segments. New foci cause bronchopneumonia, but rarely bronchiectasis.

Sinusitis is found in 65% to 90% of all cases of bronchiectasis, yet seldom do patients with chronic sinusitis develop bronchiectasis under observation. There are some who contend that the sinusitis is fostered by the continual bathing of upper respiratory mucous membrane with infected droplets from cough. The probable answer is that the conditions are coexistent and reflect a high degree of susceptibility to infection in the entire respiratory tract.

Pulmonary fibrosis is also a factor in the production of bronchiectasis. Although the disease affects primarily the bronchus and then the lung, or both simultaneously, there is evidence that in certain instances traction from surrounding fibrosis contributes definitely to the development of the bronchial dilatation. This is particularly true in tuberculosis, lung abscess, pneumoconiosis, and may follow operative procedures on the chest.

### Symptoms

One usually elicits a history of recurring attacks of pulmonary infections, more frequent in the winter than in the summer. If these attacks have dated from childhood they will have started following one of the acute childhood diseases complicated by pneumonia. In the febrile episodes he probably has been diagnosed as bronchopneumonia; in the periods of remission as childhood "asthma" or asthmatic bronchitis. Persistent cough, raising of sputum, vomiting of purulent sputum, anemia, and lowered resistance to colds are characteristic symptoms at this time. Tonsillectomy and adenoidectomy are often performed without much improvement. Spontaneous remissions with the hope that the child will outgrow his condition permit him to reach adulthood with an established suppurative bronchiectasis or chronic pneumonitis. These people have many vague symptoms referable to chest colds and bronchitis, fatigue, anemia, loss of weight, and chronic indigestion. Many will not present themselves to the physician unless he has a pulmonary hemorrhage. Hemoptysis

is quite common in bronchiectasis. 50% of bronchiectatic patients have streaking of the sputum, 10-20% have massive hemorrhage, and 3% have fatal hemorrhage. Even in tuberculosis or neoplasm, the bleeding is usually from a bronchus and rarely from the lung. Bronchiectasis must be strongly suspected in any case in which bleeding is a prominent factor. Delayed resolution of bronchopneumonia with blood spitting is usually bronchiectasis or foreign body, provided tubercle bacilli are absent from the sputum. "Unresolved pneumonia" is a term that is rapidly becoming obsolete with increasing precision of diagnosis. The symptoms of bronchiectasis existing in conjunction with or secondary to other major lung disease will vary widely. In some cases they may be insignificant, in others they may be outstanding. Symptoms in the far advanced case are cough, copious production of foul sputum, pain in the chest, hemoptysis, loss of weight, dyspnea, and general debility. At this stage there is little difficulty in diagnosing bronchiectasis, the problem is to eliminate coexisting disease.

### Physical Examination

There is no single physical finding that is diagnostic of bronchiectasis. Lisa and Rosenblatt have stated that the signs found in chronic bronchiectasis are those of chronic pneumonitis rather than those of dilated bronchi. The salient features of physical examination are (1) The general appearance of the patient with reference to the stigmata of pulmonary suppuration. (2) Location and extent of abnormal signs (3) the striking disparity between widespread nature of the auscultatory findings and the paucity of changes noted on the X-ray. The findings in the unilateral unilobar bronchiectasis are more characteristic than those of the old bilateral bronchiectasis associated with considerable pneumonitis. In the former type there is apt to be evidence of impairment of lung capacity on the affected side. Fine and medium moist rales are heard on auscultation. It is notable that the rales will vary quantitatively as well as qualitatively from one to another. Relatively dry bronchiectasis is associated with tubular breath sounds with very few if any rales, suppurative disease, with an abundance of rales and suppressed breath sounds. For this reason tubular sounds are more characteristic in upper lobe disease. It is worth while to repeat that abnormal findings will be more apt to be elicited if one suspects lung disease. Clubbing of the fingers is associated with many lung diseases and is of importance only in that it directs



the examiner's attention to the possible existence of lung pathology.

### Roentgenology

The X-ray examination is essential for what it reveals and for what it fails to reveal. Unless contrast medium is used it is not possible to accurately demonstrate bronchial dilatations. On the other hand anterior-posterior and lateral films will often reveal suspicious areas of fibrosis and atelectasis in the costo-vertebral gutter. There will occasionally be a retraction of the interlobar fissure towards the diseased lobe. Irregularity of the contour of the diaphragm from basilar adhesion suggests the presence of past or present infection in this area. One may suspect from the ordinary X-ray plate but bronchography is necessary for diagnosis. This consists of instillation of iodized oil into the bronchial tree to provide a contrast media in the roentgen film. This procedure not only establishes the diagnosis of bronchiectasis but is extremely important in the selection of cases for surgical therapy. The extent of the disease can be localized and the absence of bronchiectasis in the supposedly healthy lung can be demonstrated.

The technique of lipiodol instillation is not difficult nor dangerous if certain precautions are observed. It is unwise to install lipiodol in the patient with hemorrhage or with fever. One should make certain that the subject is not sensitive to cocaine or iodine. It is my practice to keep a therapeutic dose of luminal or sodium amytal at hand during the cocainization of the throat. If practical, I prefer to administer a  $1\frac{1}{2}$  grain of Seconal at least one-half hour before the procedure. The throat is then cocainized until cough and swallowing reflex is abolished. With the patient holding his tongue, the oil is dropped on the back of the tongue and allowed to pass down into the trachea. By adjusting the position of the patient the oil can be passed into all parts of the lung by gravitation. If desired, one may pass an intranasal catheter directly into the trachea and insert the oil through the catheter. When lipiodol instillation is done following bronchoscopy, we have found that the catheter method is superior to injection through the bronchoscope.

Bronchoscopy is an aid in diagnosis of bronchiectasis, but is most important in ruling out foreign bodies, tumors, etc. It may be used to shrink membranes and aspirate collected secretions before bronchography.

Early in the disease it is not possible to determine whether one is dealing with an infection

that will terminate in a bronchopneumonia or a pneumonitis and bronchiectasis. The persistence of cough and expectoration long after the fever has subsided suggests the latter. It is at this time that many patients, particularly children visit the various specialists until finally the diagnosis of bronchiectasis is established. Tuberculosis must always be ruled out, particularly in the so-called "dry" bronchiectatic cases with disease in the upper lobes. Location and type of X-ray findings, laboratory studies of the sputum, bronchography, and bronchoscopic examination should establish the diagnosis. It must be remembered that we may have both conditions existing in the same patient. The advanced case of bronchiectasis should rarely be mistaken for tuberculosis. Acute lung abscess should rarely be mistaken for bronchiectasis since history, X-ray findings, and bronchography will clarify the diagnosis. Foreign bodies, tumors, and other major bronchial obstructions will many times require bronchoscopy and bronchography before the diagnosis is made.

### Treatment

The treatment of bronchiectasis is divided into medical and surgical. The cure of bronchiectasis is achieved by surgical treatment. Medical treatment should be directed towards (1) adequate drainage of the infected segment, (2) control of infection in the surrounding lung as well as in the bronchiectatic area, and (3) maintenance of good general health. Adequate drainage of the cavities is some times difficult to obtain. The lower lobes are rather easily drained by postural drainage. To obtain best results the patient may lie face down on the bed, with the hips at the edge of the bed and let the thorax and head down to the floor at the bedside. The larger lower lobe bronchi can usually be emptied in three to five minutes. Upper lobes are best drained with the chest slightly elevated and the entire body turned slightly with the infected portion uppermost. Drainage should be carried out at least twice a day at the onset if the patient can tolerate it. Bronchoscopic drainage is sometimes indicated when postural drainage is unsatisfactory. The shrinkage of mucous membranes together with direct aspiration will often facilitate drainage. Postural drainage should be continued after the bronchoscopy.

Drugs are used in conjunction with postural drainage to aid in controlling infection. Oral sulphadiazine is excreted in the bronchial secretions at a level of 60% of the blood level. Favorable results in altering the bacterial flora of the sputum and in lessening the volume of sputum



has been reported when the blood level was maintained at 5 to 15 mg. percent on oral administration. Penicillin has proven itself to be of great value in the control of the acute exacerbations of the disease and in preparation of the patient for operative procedures. Daily doses of 200,000 to 300,000 units of penicillin given intramuscularly either in multiple or single doses, results in clinical improvement very quickly. Administration of penicillin in vaporized form every three or four hours in conjunction with the above routine will in most cases convert the sputum in four to six days. The sputum first becomes less tenacious and odorous, then becomes mucoid in character and finally almost ceases entirely. Streptomycin in one-eighth gram doses combined with the aerosol penicillin has proved of increasing value in certain resistant cases. It must be kept in mind that these drugs do not affect the dilated bronchi and the associated pulmonary pathology because anatomical degeneration has already been established. Penicillin incorporated in 40% lipiodol in the strength of 1500 units to the cc. has been instilled in bronchiectatic cavities under radiographic control. The results are not too encouraging although there may be some use for the method as a pre-operative measure.

Surgical treatment is the only therapy which will offer the patient the hope of cure. This consists of surgical removal of the diseased segment of pulmonary tissue. The lobe has been considered the surgical unit of the lung until the past few years. Actually there are thirty-two anatomical segments, any one of which may be resected without disturbing the function of the remaining lung. Overholt has done rather extensive work in segmental pneumonectomy in the past few years, with the result that many cases formerly deemed inoperable may be helped.

I shall not go into detail of the surgical technique of pulmonary surgery at this time. Briefly, these cases are all done under a positive pressure intratracheal anesthesia. I personally prefer an approach through a postero lateral incision with resection of the sixth or seventh rib, depending upon the section of lung to be removed. One rib below and one rib above the resected rib is usually cut posteriorly to obtain better exposure. In the past few years all specimens have been removed by an individual ligation technique. Each vessel is dissected and ligated separately and the bronchus is closed very carefully with multiple silk ligatures. The hilar stump is irrigated with a penicillin solution and pleurized

with a flap taken from the resected lobe. Closed drainage by means of a water trap is utilized routinely and the tube is left in situ until the remaining lobe has completely reexpanded. In my personal experience this requires about 7 to 10 days for expansion and fixation. It is difficult to compare the results of the medical and surgical treatment. If surgical treatment is possible it should be carried out since it offers a cure. If the progress of the disease is such that surgery is not possible, medical treatment will modify the course of the disease and render less disagreeable many of the symptoms. Unfortunately all of these cases for one reason or another are not suitable for surgical intervention. Operative mortality should run not more than 5% in the better risk cases with some increase in risk in the advanced bilateral cases.

### Summary

1. Bronchiectasis is the second most common chronic lung disease.
2. Diagnosis must be suspected from history and physical examination, but is established by bronchography.
3. Medical therapy is palliative, surgical excision of diseased pulmonary segments offer cure in indicated cases.

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General Dwight D. Eisenhower, in his induction speech as president of Columbia University, uttered words of wisdom on the question of government subsidy when he said: "A paternalistic government can gradually destroy, by suffocation in the immediate advantage of subsidy, the will of a people to maintain a high degree of individual responsibility. And the abdication of individual responsibility is inevitably followed by further concentration of power in the state. Government ownership or control of property is not to be decried principally because of the historic inefficiency of governmental management of productive enterprises; its real threat rests in the fact that, if carried to the logical extreme, the final concentration of ownership in the hands of government gives to it, in all practical effects, absolute power over our lives."

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## A PROGRAM FOR THE MANAGEMENT OF THE CEREBRAL PALSID

S. B. THOMPSON, M.D.  
Little Rock

With the upsurge of interest in this condition, there have been many queries in regard to cerebral palsy and its management. Probably, the most frequent question from physicians has been, "What can be done for the cerebral palsied?" or it is asked more pessimistically, "Can anything be done for the cerebral palsied?" Its prevalence is also often a cause for inquiry.

### Classification

By cerebral palsy is meant any motor handicap due to a lesion of the brain. This group of conditions has been subdivided by Phelps (1), (3), (5) as follows:

- (1) Spasticity—40% of the case load (Approximate).
- (2) Athetosis—45% of the case load (Approximate).
- (3) Ataxia.
- (4) Rigidity.
- (5) Tremors.

The last three make up the remaining 15% (Approximate).

### Incidence

Statistical studies made in urban states, rural states and states with a mixed type of population have all indicated that, regardless of the type of population, there are about seven cases of cerebral palsy born per 100,000 population yearly (6). It has been further estimated that in most crippled children's programs, anterior poliomyelitis makes up 15% of the case load and cerebral palsy makes up 14% of the case load. Surveys made in Arkansas have indicated that there are about 2,000 cases of cerebral palsy at the present time.

### Mental Involvement

The value of treatment has been questioned in the past because of the misconception that most of these children are feeble-minded. Surveys and careful psychometric examinations of cerebral palsied children indicate that about 25% of the spastics are likely to have some damage to their mentality as a result of the cerebral palsy. The rigidities show about the same instance of mental retardation from the pathology that produces the disability and in the ataxic group there are some cases that fail to develop mentally. On the other hand, in the athetoids and tremors, there is no reason to think that the incidence of mental retardation is any higher than it is in non-handicapped children because

the lesion producing the handicap is well away from the centers of intelligence. Likewise, studies on these children have shown this to be true (4), (5), (9).

From these figures it appears that 75% of the spastics and rigidities will have perfectly normal mentality whereas all of the athetoids, which is the largest single group of cerebral palsy, have exactly the same intelligence that they would have had if they had not been handicapped.

On the basis of these facts, it seems reasonable that any program which would make mentally normal children more self-sufficient should be very worthwhile, and the number of cerebral palsied individuals who have become useful citizens in spite of their handicap indicates that their salvage is well worth the expenditure of time and effort that is put into it (10).

### Differential Diagnosis

Accurate diagnosis is essential for adequate therapy (2), (7), and only the physician is qualified to make an accurate diagnosis in these as in any other case. Of particular importance in the diagnosis is the muscle examination. Not only is it important to make a diagnosis of cerebral palsy and then to sub-classify it into the spastic, athetoid, etc., but it is important to know what particular muscles are involved. In the spastic, not all muscles, by any means, are spastic (2), (7). Some of them are actually flaccid and a great many muscles are normal. Therefore, the physical therapy, occupational therapy, speech therapy, braces and surgery that would be of benefit to one spastic patient might be quite out of order in another. The therapy must be directed at specific disabilities.

No system of bracing that puts the same brace on every cerebral palsied child, or even on every athetoid or ataxic or spastic child, can hope to be effective. The bracing must be done after thorough examination has indicated what muscles are involved and to what degree they are involved.

Differential diagnosis is exceedingly important when it comes to surgery (7). A spastic and athetoid child may present almost identical deformities, but the surgery that will be found extremely effective in such deformities in the spastic, may, on the other hand, completely disable the athetoid patient with similar deformities because of the fundamental difference of the nature of the motor handicap present.

Special schools are frequently needed because these children are severely handicapped physically, although they can be expected to



improve with proper treatment. Special teaching methods may be necessary, particularly where the child's speech and hands are so involved that ordinary recitation is out of the question (2), (5). Here, too, the special teaching methods vary according to the specific disability present and an accurate diagnosis is of great help to the teacher.

An accurate analysis of disabilities present in an individual case is the first requisite of an adequate program for management of cerebral palsy.

### Management

There is no known "cure" for cerebral palsy any more than there is a known cure for any congenital anomaly, for the end results of poliomyelitis or for the loss of certain parts of the body, such as the loss of a limb. It is not, however, considered that these other conditions are hopeless. The cleft palate is repaired, the position of club feet corrected, braces and re-education given the paralyzed polio victim. Efforts in cerebral palsy must be of the same order.

At the best, in most cases, it is not expected that physical abilities will be restored to that of a non-handicapped individual, but since the majority of C.P.'s have perfectly normal minds, it is possible to educate them and train them so that their mental ability can be utilized to its fullest capacity. Therefore, the most important requisite for these handicapped individuals is to provide facilities for education. This has been sadly lacking in the past because it was not considered that they were educable and because no facilities were provided for teaching physically handicapped children. Tremendous obstacles to their education have been absence of speech, or unclear speech, and inability to control the use of their hands.

Of primary importance in the education of these children is the establishment of some means of communication. The best means of communication is speech; therefore, a great deal of attention must be directed to obtaining and improving speech. It has been shown repeatedly that careful attention to the details of speech by competent speech teachers can improve the understandability of these children tremendously (5).

For proper education and usefulness, the hands are second in importance only to speech. For self-sufficiency in school, the handicapped individual should be able to feed himself, dress himself and take care of his bathroom needs. For communication, he must either be able to write or type. The spastic, whose efforts to use his hands are thwarted by the presence of

stretch reflexes, can be greatly benefited by a process of bracing and physical re-education to use the extremities within the limits of his disability and to accomplish a great deal with them. The athetoid whose involuntary motion has made hand use difficult, and the ataxic whose loss of position sense has made his hands incoordinate, can both benefit by repetitious performance of basic movement. This is largely the function of the occupational therapist, and large numbers of children have been remarkably benefited by the efforts of this group of therapists in programs throughout the country (5), (8).

Of less importance, but by no means to be ignored, is the ability to walk. This function has been brought out repeatedly in cerebral palsied children who had been confined to beds and wheel chairs by the use of braces, vigorous physical therapy, and surgery (5), (7). The inherent balance sense lacking in the ataxic can be substituted for by training the eyes and the sense of touch to such an extent that these children can learn to walk quite well. The involuntary motions of the athetoids can be so controlled by bracing and training in voluntary relaxation that they are able to get about satisfactorily. The stretch reflexes of the spastic can be very adequately controlled and the deformities overcome by bracing, physical therapy and surgery (5).

A great many cerebral palsied children, particularly in the spastic, rigidity and ataxic groups are prone to have convulsive seizures, either grand mal or petit mal. Such seizures have a very marked retarding effect. Dr. Phelps has compared the effects of a seizure to that of hitting a child on the head with a hammer. Very little progress can be expected with any of the forms of therapy unless seizures can be brought under control. There are, of course, some instances where it is not possible to control the seizures. However, in most cases it is possible to diminish the number and in a great many it is possible to control them entirely. This phase of the therapy is definitely in the province of the physician and can quite well be done in many instances by the family physician as well as the specialist.

Surgery is quite useful in the spastic, particularly in overcoming contractures and in improving function (2). However, if these children are treated early, contractures can be largely prevented by proper bracing and physical therapeutic measures so that the necessity for surgery should decrease just as it has in polio with



improved supportive care. Surgery has some use in rigidities but is of little value in athetoids, ataxics or tremors (2).

For lack of direction, a great many parents of such handicapped children have been prone to take them to various places to get the above mentioned attention from different individuals without any correlation of the program. Far too frequently, they have fallen into the hands of charlatans. It is vitally important that all phases of the child's care be coordinated and correlated, and this can be done satisfactorily only by the physician. Otherwise individual therapists tend to over-emphasize their particular phase of the child's training to the neglect of his training in the other phases.

### Cost

The cost of the program is not as great as might appear. Much of the therapy that is necessary can be given by the mother or some other member of the family under proper guidance. Having the therapist instruct the mother in treatment of her own child is not the ideal way of handling these children, but is often a very practical way and one that will work quite satisfactorily in many instances. Unless growth is extremely rapid, braces can be expected to last from two to three years before it is necessary to change them. As this is a long range educational program, it is not necessary for the supervising physician to see the child at very frequent intervals.

Institutional care is, of course, quite expensive and will of necessity remain so, as it involves not only complete physical upkeep of the child, but also the daily attention of three or four very highly specialized individuals. There will always be a need for beds where such individuals can be placed either because the home conditions are not satisfactory or because the severity of the child's condition makes institutional care desirable. However, the vast majority can be treated in their own homes, and it is this group in which the best results are most likely to occur.

The percentage who can be made self-sustaining by such a program is quite high and those who still require protection as adults can be brought to a point of self-sufficiency where the economic factors in caring for them can be decreased to considerable extent.

### Role of the Family Physician

The family physician has a very important role to play in this program of caring for the cerebral palsied child (2). He is, in most instances, the first to whom the child is brought and on his shoulders rests the responsibility for making the diagnosis of cerebral palsy. This is a rather

difficult diagnosis to make in infancy, but with a little care it can be done quite satisfactorily without special tests. It is to the family physician that the family turns when they realize that they have a handicapped child and his knowledge of the outlook for such a child can mean a great difference in the morale of the home. Far too many homes have been blighted by the announcement that their child was "spastic" and "feeble-minded" and that the best thing to do was to put him away in a back room and forget about him. As has already been mentioned, the burden of the care in seizure control will devolve in most instances on the family physician or the pediatrician, with the help of the physician supervising the child's cerebral palsy program. This is no more difficult than the regimen employed in a great many other conditions now handled by him once the physician has familiarized himself with the armamentarium available for such therapy.

The best schooling available for a cerebral palsied child is in the local public school if his condition is such that it will permit him to attend, and if the local teachers will accept him. The family physician, who has a knowledge of the child's condition and what can be expected of him, can exercise far more influence in persuading the local schools to accept such a child, who is capable of learning, than anyone else.

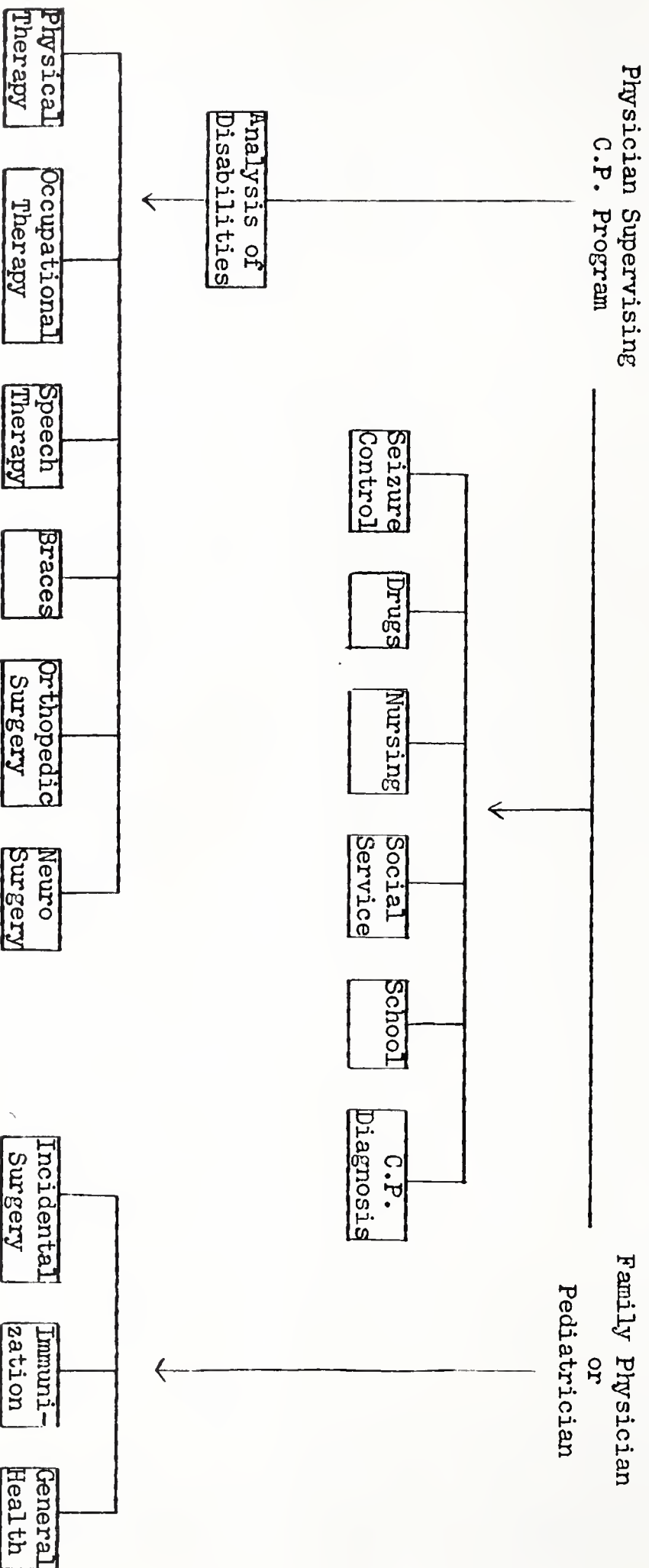
Of particular importance to the family physician is the fact that these children can, for their other ills, be treated exactly as if they were normal children (2). Cerebral palsy does not directly affect the health of a child. The athetoid, who is in constant motion, requires considerably more food than does another child of his same age and weight and is more likely to become undernourished and develop avitaminoses. The spastic and rigidity, because of their inactivity, may tend to more respiratory infections, but all of these are secondary results. There is nothing inherent in any of the types of cerebral palsy that will make an anesthetic for tonsillectomy, appendectomy, tooth extraction, reduction of fractures or any other necessary surgery contraindicated. He requires, and is perfectly able to take, the same inoculations that other children of his age are receiving.

### Summary

1. The Phelps classification of cerebral palsy is presented.
2. The incidence of cerebral palsy is estimated. (Estimates indicate 2,000 cases under 16 years of age in Arkansas at the present time.)
3. The normal mentality of a high propor-



RESPONSIBILITIES IN THE MANAGEMENT OF CEREBRAL PALSY





tion of the cerebral palsied is stressed.

4. The necessity for accurate diagnosis is emphasized.

5. A program of care is outlined and its cost discussed.

6. The role of family physician and/or pediatrician is outlined.

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#### RESOLUTION

Whereas, Almighty God has seen fit to take from us our friend and colleague, Dr. Crandall P. Sisco, we, the staff of the Fayetteville City Hospital, deeply regret his untimely passing.

Whereas, as a physician and surgeon he has brought unfailing devotion and professional honesty to those in need without regard for personal sacrifice and has, through a lifetime of adherence to the finest concepts of medical service, won the devotion and respect of his colleagues as well as the gratitude of the community he served.

Be it resolved, that the staff of the Fayetteville City Hospital express to his family its deepest sympathy in the loss they have sustained

and of its great respect for his ability as a physician and colleague; that a copy of this resolution be made a matter of record in the minutes of this meeting; that a copy be sent to his family, and that a copy be sent to the Journal of the Arkansas Medical Society.

Ralph E. Weddington, M. D.

Fount Richardson, M. D.

J. W. Dorman, M. D.

#### OBITUARY

WILLIAM R. ORR, age 62, of Helena, died December 1st of injuries received in the explosion of a river cruiser November 27th. Born in Tate county, Mississippi, he graduated from Tulane University of Louisiana in 1908 and began practice with his uncle, Dr. W. C. Russwurm, at Helena, in 1910. He was later associated with Dr. James W. Butts, but conducted an individual surgical practice from 1922 until his retirement several years ago. He was married to Miss Helene Mays, who survives him, on March 10, 1917. Two sons also survive.

C. J. MARTIN, age 68, of Hindsville, died of a heart attack November 19th. A graduate of Southern Methodist University Medical Department in 1906, he formerly practiced at Rio Grande, Texas, but moved to Arkansas in retirement several years ago. He had resumed practice during the war years at Hindsville.

#### CALCIUM DEMAND AUGMENTED IN PREGNANCY AND LACTATION

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For literature and professional samples of Mead's Veal Bone Ash Tablets, write Mead Johnson & Company, Evansville 21, Indiana.

\* Ebbs, J. H.: Nutrition in Pregnancy, *M. Clin. North America* 27:537-543 (March) 1943.



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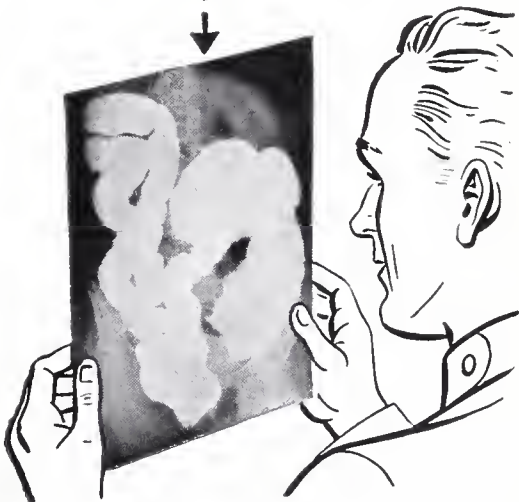
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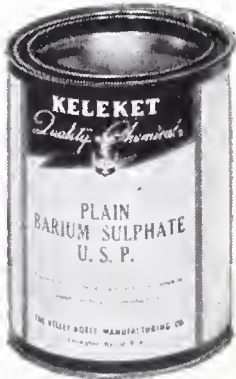
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# THE JOURNAL

OF THE

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## EDITORIAL

### ASSESSMENT ON MEMBERS BY THE AMERICAN MEDICAL ASSOCIATION

The Society is in receipt of the following telegram from Dr. George F. Lull, Secretary, American Medical Association:

"Recent interim session House of Delegates unanimously decided to assess each member of the American Medical Association twenty-five dollars. You are requested to collect this assessment through your county units or any other way you desire."

In connection with this message the following statement has been made available for members through the office of Dr. Lull:

Progress in American medicine is an achievement which we, as doctors, are proud to relate to the general public.

Yet, for some time now, many stories reaching lay readers have dealt with isolated cases of distress, indicting the medical profession, along with articles based on glib promises of social planners.

During the ensuing year, the medical profession must concentrate its efforts on one problem:

to tell the American people about the many contributions which the medical profession has made to alleviate disease, preserve life and postpone death. Our story must stress the importance of our present system of voluntary care and present the true facts about medical care and health protection.

The House of Delegates of the American Medical Association, at the Interim Session in St. Louis, fully recognized these problems by creating a means for carrying on a nationwide health education program. To finance this program an assessment of \$25 was made on each member of the American Medical Association. Members of the American Medical Association do not pay dues. If they desire to become Fellows of the Scientific Assembly they make application and pay \$12 a year dues, which include a subscription to The Journal. This hardly pays for the paper and printing; notwithstanding the fact that the doctor receives the best medical periodical published anywhere in the world.

In 1947, the expenses of the Association exceeded income. For that reason dues of Fellows were raised from \$8 to \$12. However, even higher costs have kept apace with this raise and the Association may show a net loss for 1948.

The medical profession as a whole is of the firm opinion that government control of medicine would lower the standards of medical care in the United States, and is so sincere in this belief that it feels everything possible should be done to prevent such control from being thrust upon us.

A coordinating committee has been formed to help solve many of the problems which we face, and it is enlisting the support of every physician. This committee is composed of Dr. E. L. Henderson, chairman, Dr. Edward S. Hamilton, Dr. Gunnar Gundersen, Dr. Walter B. Martin, Dr. Louis H. Bauer, Dr. John W. Cline, Dr. William Bates, Dr. R. B. Robins, Dr. R. L. Senenich, and Dr. George F. Lull.

Arkansas has been signally honored in the selection of Dr. Robins to serve on this most important committee. Arkansas physicians must assume their rightful share of the effort which lies ahead.

### COMMITTEE REPORTS TO ANNUAL SESSION

The House of Delegates has decreed that all committee reports presented for its consideration at the annual sessions must be published in The Journal in advance of the meeting. Accordingly, committee chairmen and others presenting reports to the Society at the annual ses-



sion are reminded that such reports must be prepared in sufficient time to insure their publication in The Journal of the Arkansas Medical Society, March, 1949, issue. This necessitates that the reports be received in the office of the state secretary not later than February 10th, 1949. The cooperation of all concerned is requested in this effort to expedite the work of the House of Delegates.

### RANDOM THOUGHTS OF THE SECRETARY

November 20th. To Oklahoma on opening day of the quail season, finding the birds shunning us foreigners.

November 21st. The Council listens to plans and projects of the medical school, an opportunity being now at long last for the medical society to take an active part in the affairs and activities of the school. President Jones, whom we enthusiastically admire, speaks as one of the group and endeavors to set aside some of our pessimistic thoughts.

November 28th. With the state secretaries and editors in Saint Louis today for a program of special interest and most happy as opportunity is afforded to renew acquaintances with men who are doing things in medical organization.

November 30th. What may well be the most important session ever held convenes and there is evidence of serious consideration to the future of medical practice and indeed, of life and living as we Americans wish it. Arkansas is signally honored by the selection of Robins to the all-important committee on policy, a task in which the full profession must give its unstinting support.

December 1st. Koenig discusses cancer in earnest at today's session of the training school and we explain the objectives, functions and attainments of the cancer commission to an interested group of women volunteers who have served well in the cause.

December 3rd. In the company of the companionable Foltz but with soupy weather driving to Harrison, renewing acquaintance with the traveling faculty of the cancer society training program, encouraging reception of Foltz's talk by planted questions, making our little say, briefly visiting Owens, Gladden and Poynor, eating well at the Basin Park in Eureka Springs and home in the finest sort of weather to catch up with the day's events at four o'clock.

December 8th. Another of our milestones rolls by giving us anew the realization that ours has been a fortunate lot and grateful to the fullest that tonight's little gayety is with the finest people we know, our own.

December 11th. Challenged by the opportunity this day to speak to the medical students and realizing that to seek knowledge is after all to live. As a diversion we do our daily good turn by forcing Dean Langston to rescind his refusal to go bird hunting and we hope he got his limit.

December 14th. The Holt-Krock group entertains the county society with the best of steaks; Pratt from the Mayo Clinic presents an interesting discussion of post-menopausal bleeding and all wish Hardy Smith, en route to sunny California and well-earned retirement, all of happiness in the years that lie ahead of him.

### CORRESPONDENCE

November 24, 1948

Dear Dr. Brooksher:

Thank you for your kind letter in which you paid tribute to my husband. Carl's association with the Medical Society was one of those he enjoyed most. He would have appreciated your commendation very much.

Will you please express the heartfelt thanks of the entire family to the members of the Arkansas Medical Society for their beautiful flowers.

Very sincerely yours,

MARJORIE BAILEY.

(Mrs. Carl E. Bailey)

To the Editor:

We wish to advise you of the organization of the Arkansas Rheumatism Society which is an affiliate of the American Rheumatism Association.

You will find enclosed a copy of the constitution and a list of the charter members and officers.

You are requested to announce that any member of the Arkansas Medical Society desiring membership in this organization may obtain same as a charter member by writing to Colonel Augustus M. Davidson, Secretary, Army and Navy General Hospital, Hot Springs, Arkansas.

With best regards, I am

Sincerely,

EUCLID M. SMITH, M.D.

### THE NEW ORLEANS GRADUATE MEDICAL ASSEMBLY POST-CLINICAL TOUR OF MEXICO

The New Orleans Graduate Medical Assembly is sponsoring an interesting post-clinical tour to Mexico, planned to follow the 1949 Assembly meeting. On Saturday, March 12, a party composed of doctors and their wives, will leave by Pan American Clipper for Mexico City and headquarters will be at the new and beautiful Hotel Del Prado.

A medical program has been arranged for the group in Mexico City and the itinerary includes visits to Cuernavaca, Taxco, Puebla, Fortin, Oaxaca, Orizaba and other points too numerous to mention.

Departure from New Orleans will be on Saturday, March 12, and the group will return on Sunday, March 27.

Details and a complete itinerary are available at the office of the Assembly, Room 105, 1430 Tulane Avenue, New Orleans 12, Louisiana.



# TUBERCULOSIS ABSTRACTS

## *A Review for Physicians*

ISSUED MONTHLY BY THE NATIONAL TUBERCULOSIS ASSOCIATION

### HAZARDS OF FLYING FOR TB PATIENTS

"DOCTOR, should I do any flying?" Many patients with tuberculosis of the lungs want an answer to this sometimes difficult question. Whether or not it is wise for them to fly depends on a number of things. Some can do it safely. The rest are facing danger.

Air on the ground is much heavier than it is a mile or two up. At sea level it exerts a pressure of 15 pounds on each square inch of the body surface, which is not felt because it presses equally on all sides. This pressure diminishes rapidly as one rises from sea level. In other words, the higher one goes, the lower the pressure.

#### **Inside Air Expands**

A toy balloon has rubber walls that stretch. Take this balloon up in the sky and it will get bigger because the air inside expands as the pressure of the air surrounding the balloon decreases.

Many patients with pulmonary tuberculosis have abnormal collections of air in their bodies. A cavity in the lung represents such a collection—so do pneumothorax and pneumoperitoneum. They are major hazards in flying since they behave like the balloon.

The size of these abnormal collections of air will vary with the height above sea level. They will become seven per cent larger at 2,000 feet, about 50 per cent larger at 10,000 feet and nearly 100 per cent larger at 16,000 feet.

Commercial planes usually fly below 10,000 feet. They may have to fly higher when crossing mountains or encountering storms. At any height, changes can be expected in all collections of air.

#### **Breathing Hazards**

A refill for pneumothorax or pneumoperitoneum is calculated to produce the right pressure on the lung. A bigger refill might do harm. Going up in an airplane is just like getting a bigger refill.

Flying is definitely hazardous for those who have pneumothorax complicated by adhesions as they may break or they may pull hard enough to rip the surface of the lung. Air will then leak into the pneumothorax air pocket and dangerously increase its size. Massive increase will

push the heart toward the opposite side of the chest and compress the opposite lung. If respiration is embarrassed, the patient may become alarmingly short of breath, have palpitation, sudden weakness, even shock.

Some patients have pneumothorax compressing both lungs. Their capacity to breathe is much diminished. Flying for them is contraindicated as it can well bring on severe shortness of breath and other frightening symptoms.

#### **Pressure and Hernia**

Beneath the breast bone one lung is separated from the other by a group of structures known as the mediastinum. This mediastinum has several weak spots. Through these a pneumothorax may bulge into the opposite side of the chest. This is called a hernia of the mediastinum and is not without danger even on the ground. In flight, such a situation can become exceedingly uncomfortable.

Those patients who notice discomfort after pneumothorax or pneumoperitoneum refills will certainly have greater discomfort when flying. Those who are short of breath on exertion will have more difficulty when flying. Patients who have recently bled from the lungs should postpone any thought of flying because of the danger of reopening the blood vessel.

Cavities produced by tuberculosis frequently contain air which expands in flight. When air can escape from a cavity the danger is minimal. If an obstruction is present the trapped air in expanding may tear the walls of the cavity or injure a blood vessel with subsequent bleeding which can threaten life.

To prevent serious discomfort or damage, some patients may have to breathe oxygen through a mask when flying. Other patients will fare better if air is removed from their pneumothorax or pneumoperitoneum before they fly. Airplanes that fly far above the earth, 20,000



or 30,000 feet, are pressurized. Pumping systems maintain an air pressure inside the cabins simulating conditions much closer to the ground. Otherwise, no one could remain alive at those heights. Nevertheless, a few patients face danger in a pressurized airplane because the pressure in the cabin cannot be kept at ground level values.

The tuberculous patient is wise who consults his doctor before he flies.

Hazards of Flying for TB Patients, Ezra Volk Bridge, M.D., The NTA Bulletin, May, 1948.

## A RESOLUTION OF THE EXECUTIVE COUNCIL OF THE UNIVERSITY OF ARKANSAS SCHOOL OF MEDICINE PERTAINING TO THE DEATH OF MR. CARL E. BAILEY

WHEREAS, the destiny to which all life is subject has suddenly and prematurely removed from his earthly sphere of activity Mr. Carl E. Bailey, the thirty-first governor of the State of Arkansas, and

WHEREAS, Governor Bailey earnestly, willingly and effectively showed himself to be a friend of medical education and the School of Medicine of the University of Arkansas, and

WHEREAS, he so frequently, as chief executive of the state, as counselor, teacher and adviser, gave his time, talents and wisdom for the benefit and progress of the School of Medicine, therefore,

BE IT RESOLVED: That the Executive Council of the School of Medicine of the University of Arkansas, speaking for the administration, faculty and student body of the School of Medicine, do mourn his untimely passing and do express our sincere regret at so great a loss to the school and to the people of the State of Arkansas; and

BE IT FURTHER RESOLVED: That in recognition of his services our deepest sympathy be expressed to members of his family; and that a copy of these resolutions be spread on the minutes of this Council, a copy be sent to the family of Mr. Carl E. Bailey, and a copy to the Journal of the Arkansas Medical Society for publication.

(Signed): W. C. Langston, M.D.,  
W. A. Reilly, M.D.,  
A. Nettleship, M.D.,  
G. O. Dean, M.D.,  
Committee.

## PROCEEDINGS OF SOCIETIES

Conway County Medical Society has elected the following officers: President, H. E. Mobley; vice-president, J. C. Porter, and secretary-treasurer, C. E. Etheridge.

The Sebastian County Medical Society met in dinner session as guests of the Holt-Krock Clinic, December 14th, with J. H. Pratt, Mayo Clinic, speaking on "Bleeding in the Menopausal and Postmenopausal Periods." Officers elected are: J. K. Thompson, president; A. S. Koenig, vice-president; J. B. Stewart, secretary; John D. Olson, treasurer; and Fred H. Krock, member, Board of Censors.

Members of the Arkansas Medical Society who may be interested in presenting scientific papers at the Annual Session in Little Rock, April 14-16, are invited to submit them on or before February 1st to any of the following members of the Committee on Scientific Work: Joe B. Wharton, chairman, El Dorado; Charles H. Lutterloh, Hot Springs; R. J. Calcote, Little Rock; C. S. Moss, Hot Springs; or W. R. Brooksher, Fort Smith.

The American Academy of General Practice which was organized in June, 1947, at the centennial meeting of the American Medical Association at Atlantic City, now has chapters in thirty-two states and has a national membership of around seven thousand.

The next annual meeting will be held at the Netherlands Plaza Hotel in Cincinnati March 7, 8 and 9, 1949. An outstanding postgraduate training program for the general practitioner has been arranged for this meeting.

The Arkansas Chapter was organized last April in Little Rock. Dr. L. H. McDaniel of Tyronza, Arkansas, is secretary of the Arkansas Chapter. All general practitioners interested in membership are asked to communicate with Dr. McDaniel.

The first annual session of the Arkansas Public Health Association in Little Rock December 9-11th, was addressed by Roscoe P. Kandle, "The Functions and Operations of a State Public Health Association"; Felix J. Underwood, "The Value of Good Public Relations in a Public Health Program"; Mrs. C. W. Garrison, "History of Public Health in Arkansas"; Edythe P. Hershey, "Organization and Functions of a Community Health Council"; Wilson G. Smillie, "National Trends in Public Health"; Mr. Elder



Johnson, "Community Responsibility in a Public Health Program"; Mr. Glenn F. Walther, "State's Responsibility in a Good Public Health Program"; C. C. Applewhite, "Personal Experiences in the Growth of Public Health" and Doyle Fulmer, "Public Health from the Viewpoint of a Private Practitioner."

The Ninth Councilor District Medical Society met in luncheon session at Harrison November 19th for the following program: "Hemorrhages in the Last Half of Pregnancy," Eva Dodge, Little Rock; "Roentgenologic Interpretation of Lesions of the Chest," I. Meschan, Little Rock; "Diagnosis and Treatment of Bronchiectasis," Wm. A. Hudson, Detroit, and "The Medical School," W. C. Langston, Little Rock.

Dr. and Mrs. John P. McAlister entertained the Ouachita County Medical Society at dinner at their home in Camden December 9th.

The following program was presented:

"Anti-histamines in the Treatment of Cutaneous Diseases," Thos. F. B. Darnell, Little Rock; and "Anti-anemic Substances," Paul A. Day, Little Rock.

New officers were elected as follows: President, John P. McAlister, Camden; vice-president, Henry Hearnberger, Stephens; secretary, R. B. Robins, Camden; delegate, Perry Dalton, Camden; alternate, and Tom Meek, Camden.

R. B. Robins, Secretary.

The Arkansas Rheumatism Society was organized November 27th at Hot Springs National Park with the following charter members:

Frank M. Adams, J. Banks, Charles D. Bauer, E. R. Browning, Ferris B. Chick, Edgar K. Clardy, Augustus M. Davison, Victor P. Diederich, Gaston A. Hebert, Edgar B. Johnwick, Leeman H. King, Ossian H. King, J. S. Kootsey, D. C. Lee, Wm. R. Lee, Chas. H. Lutterloh, Louie G. Martin, J. Meschan, Robt. F. McCrary, A. W. McCullough, C. W. Parkerson, Ralph M. Patterson, James E. Phillips, Lon E. Reed, F. J. Scully, Edward B. Shires, Euclid M. Smith, John R. Totter, O. C. Wenger, J. S. Wilkins, Charles T. Young, Paul Woods, George C. Coffey and Carrol Shukers.

Officers are Euclid M. Smith, president; Louie G. Martin, vice-president, and Col. A. M. Davison, secretary-treasurer.

## PERSONALS AND NEWS ITEMS

L. N. Bollmeier, Hot Springs National Park, addressed the Dallas meeting of the Southern Psychiatric Association on "The Dynamics of Juvenile Delinquency."

W. F. Adams, Fort Smith, attended the recent postgraduate course on obstetrics and gynecology held at the University of Kansas School of Medicine.

Fred Hames, Pine Bluff, and Frank Kumpuris, Little Rock, conducted a diagnostic cancer clinic at Jonesboro December 2nd under the sponsorship of the Craighead County Medical Society and the Arkansas Division, American Cancer Society.

C. Lewis Hyatt, Monticello, recently took special work in electrocardiography at Tulane University.

Lt. Col. Roger Hederick, Booneville, has been assigned to Hdqrs. Detachment, 101st Medical Battalion, Separate, Arkansas National Guard, now stationed at Booneville.

In attendance at the recent Chicago session of the American Academy of Dermatology were D. W. Goldstein, Fort Smith; Ellis P. Cope and Ray Fulmer, Little Rock, and Dorothy Goetze, Hot Springs National Park.

R. J. Turner and C. C. Long, Jr., have been elected surgeons of their respective American Legion posts at Clarendon and Ozark.

At the recent convocation of the International College of Surgeons held in Saint Louis, Carl L. Wilson was elected a fellow, and the following were elected associate fellows: W. B. Harrell, Texarkana; R. E. Lesh, Fayetteville; V. O. Lesh, Fayetteville; J. G. Martindale, Hope; J. J. Baggett, Prairie Grove, and F. Q. Wyatt, Batesville.

An incomplete list of those registered at the Saint Louis session of the American Medical Association is as follows: Geo. B. Alcott, Weiner; J. P. Bremer, Point Cedar; W. R. Brooksher, Fort Smith; T. E. Burrow, Carlisle; B. Capes, West Helena; W. R. Cothorn, Crossett; Bryce Cummins, Little Rock; Hal Dildy, Little Rock; J. G. Gladden, Harrison; J. A. Henry, Russell-



## BRONCHIAL ASTHMA

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\*Searle Aminophyllin contains at least 80% of anhydrous theophylline. G. D. Searle & Co., Chicago 80, Illinois.

1. Mountain, G. E.: Bronchial Asthma, J. Iowa M. Soc. 35:324 (Aug.) 1945.

SEARLE RESEARCH IN THE SERVICE OF MEDICINE

THE COUNCIL URGES SUPPORT OF JOURNAL ADVERTISERS



ville; R. L. Hickman, Hickory Ridge; L. F. Hubener, Blytheville; J. F. Jackson, Newport; H. Fay H. Jones, Little Rock; L. J. Kosminsky, Texarkana; J. H. McCurry, Cash; L. H. McDaniel, Tyronza; T. J. Meek, Camden; W. T. Rainwater, Blytheville; J. T. Roberts, Little Rock; R. B. Robins, Camden; B. N. Saltzman, Mountain Home; J. M. Sheppard, El Dorado; Jos. F. Shuffield, Little Rock; B. E. Watts, Hot Springs National Park, and J. B. Wharton, Jr., El Dorado.

A. J. Brizzolara, who has been doing special work in New Orleans, is now associated with Paul L. Mahoney in the practice of otolaryngology and peroral endoscopy, Little Rock.

G. D. Murphy, Jr., has been elected vice-president of the El Dorado Safety Council.

Training schools conducted by the Arkansas Division, American Cancer Society, were addressed by Fred Hames and H. A. Causey, Pine Bluff; T. P. Foltz, A. S. Koenig and W. R. Brooksher, Fort Smith; W. G. Cooper, C. A. Rosenbaum and J. O. Growden, Little Rock; R. B. Robins, Camden; Gerald H. Teasley, Texarkana; and C. Lewis Hyatt, Monticello.

V. O. Lesh, Fayetteville, has been elected vice-president of the Frisco System Medical Association.

Dr. and Mrs. H. A. Causey, Pine Bluff, attended the Los Angeles session of the American College of Surgeons and visited western points.

## WOMAN'S AUXILIARY NEWS

The Southeast Arkansas Medical Auxiliary met Monday, November 16, 1948, at the school cafeteria in Star City. After dinner with the doctors a short, informal business session was held. In the absence of both the president and the secretary, Mrs. H. T. Smith was in charge. The Christmas party was discussed, but no actual plans were made. After adjournment, the remainder of the evening was enjoyed playing Bingo.

There were nine members present.

Mrs. Van C. Binns.

The Hempstead County Medical Auxiliary met November 2nd, at the home of Mrs. Elbert Wilkes. Mrs. Jim McKenzie, president, presided over the business meeting. She made a report on the State Board meeting and distributed copies of the "minutes and reports of the

Woman's Auxiliary to the Arkansas Medical Society."

Plans were made to find girls interested in nursing and to inform them of the Martha H. Gann nursing fund.

The president instructed the various committee chairmen on their duties for the coming year.

Mrs. James Branch presented the program which consisted of several clever poems about doctors and their wives.

Mrs. Walter L. Sims,  
County Publicity Secretary.

Prevention of mental illness rather than a cure was stressed by Dr. William Rottersman, assistant director of Professional Education at the Veterans Administration hospital, North Little Rock, and well known mental hygienist, at an invitational meeting recently at the Public Library, under the auspices of the Auxiliary to the Jefferson County Medical Society.

The speaker throughout his talk brought to the attention of his most attentive listeners, the indifferent attitude of the general public, and of some law enforcement officers toward the mentally sick, adding that one out of every 12 persons is afflicted with a mental "quirk" at some time during his life. "No state is up to par on the treatment and facilities for the care of the mentally ill and Arkansas would rank about fortieth," the speaker added.

"Arkansas spends about \$1.50 daily for the care of its mental institutions when the needs daily will average around \$5.00. Mental hygiene should be taught in all schools but not to the exclusion of the basic family unit, the HOME, where it must be begun and taught all along the line if improvement is to be noted," the speaker added.

"To raise a generation of normal children we must raise a generation of normal parents," the speaker asserted, adding that the attitude of shame connected with a person's mental illness by relatives and friends has been outmoded, since mental illness is surely a disease whose origin in some cases is linked with some physical illness.

\*Dr. Rottersman was introduced by Dr. Louis K. Hundley who was presented by Mrs. C. W. Anderson, president of the Auxiliary.

Before the speaker's address, marimba solos, "Rondino" (Kreisler) by Claire Wheatley and



"Hungarian Dance" No. 5 (Brahms) by Carol Lynn Wheatley, entertained the audience. They were accompanied at the piano by their mother, Mrs. Hilda Claire Wheatley.

We are happy to announce that a new county auxiliary, Green-Clay, has been organized with Mrs. W. M. Lamb of Paragould as president. Mrs. Lawson; Mrs. Louis K. Hundley of Pine Bluff, president-elect, and Mrs. Charles R. Henry of Little Rock, first vice president, organized this new county auxiliary.

The following nominating committee was elected: Mrs. C. W. Anderson, chairman, Pine Bluff; Mrs. Byron Bennett, Little Rock; Mrs. Alfred Hathcock, Fayetteville; Mrs. C. G. Hinkle, Batesville; and Mrs. Harvey Shipp, Little Rock.

Mrs. Fred H. Krock and Mrs. Art Martin were hostesses for the November luncheon meeting of the Auxiliary to the Sebastian County Medical Society, November 8th.

At the business session, at which reports by a number of chairmen were heard, the president, Mrs. Thomas P. Foltz, announced there would be no December meeting.

Present besides the above named were Mrs. Arthur Franklin Hoge, Mrs. Marlin Hoge, Mrs. E. A. Mendelsohn, Mrs. Roy Shirmer, Mrs. L. A. Whittaker, Jr., Mrs. Everett C. Moulton, Sr., Mrs. Carl Wilson, Mrs. W. L. Shippey, Mrs. A. S. J. Clark, Mrs. Stanley Gates, Mrs. Wright Hawkins, Mrs. V. N. Kennedy, Mrs. J. S. Southard, Mrs. S. P. Stubbs, Sr., Mrs. Paul Moverly, Mrs. John Ben Stewart, Mrs. Ben Pride, Mrs. Kenneth Thompson, Mrs. Charles T. Chamberlain, Mrs. Ralph Crigler and Mrs. W. F. Rose.

Mrs. W. F. Rose, Publicity Chairman.

The Auxiliary to the Fourth Councilor District Medical Society met in Monticello October 18, 1948, at the Country Club. After dinner with the doctors Mrs. H. T. Smith of McGehee presided in the absence of Mrs. R. D. Dickens of Pine Bluff, who had everyone stand and introduce herself. Mrs. Mason G. Lawson of Little Rock, president; Mrs. W. J. Hunt of Warren, past president and Mrs. Louis K. Hundley of Pine Bluff, president-elect of the Auxiliary to the Arkansas Medical Society were present. Mrs. Lawson was the guest speaker and called on both Mrs. Hunt and Mrs. Hundley for remarks.

There were 21 present.

Mrs. Van C. Binns.

## RESOLUTION

WHEREAS, an all-wise Providence has seen fit to remove from our midst our valued co-worker and a faithful member of the Pulaski County Medical Society, Dr. Wilfred Rossner Parsons, we, the members of the Society, mourn and deeply regret his sudden and premature death.

WHEREAS, in answer to a call of service from his country's leaders during the late war he gave of his skill and energies unstintingly and at great personal sacrifice.

WHEREAS, as a physician in his chosen field of Pediatrics he attained a great measure of distinction and won the respect of his colleagues as well as the gratitude and love of a host of sorrowing people.

BE IT RESOLVED, that the Pulaski County Medical Society express to his family the esteem in which he was held as a member of the Society and its heartfelt sympathy to the family at the untimely loss that they have sustained; that a copy of this resolution be made a matter of record in the minutes of this meeting; that a copy be sent to the family and a copy be sent to The Journal of the Arkansas Medical Society.

This Resolution is respectfully submitted to the Society by your Committee.

Henry G. Hollenberg, M.D.,  
D. A. Rhinehart, M.D.,  
John N. Roberts, M.D.

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OF THE ARKANSAS  
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# The JOURNAL

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### PIONEER DOCTORS OF JEFFERSON COUNTY \*

By MRS. R. D. DICKINS  
Pine Bluff

The following are brief resumes of the lives of some of the doctors practicing in Jefferson County before 1881. The list may be incomplete and is not listed in chronological form.

#### DR. SAMUEL G. BROWNING

Enterprising and deservedly popular in the county, Dr. Browning was considered a very successful physician. He was proprietor of a store at Macon and owned one of the large sawmills of the county. He was born in Mississippi in 1850, entered Louisville Medical College in 1872. He began his practice in Mississippi. From there he moved to Johnson County, thence to Jefferson Springs about 1881. His wife was Miss Georgia Simms, a native of Mississippi and a Presbyterian. Dr. and Mrs. Browning had two children, Maude, who died quite young, and Walter.

#### DR. ASA BRUNSON

Dr. Brunson was a practicing physician of wide and honored acquaintance, becoming a wealthy planter of Jefferson County.

Born near Clarksville, Tennessee, 1822, son of Jesse A. Brunson, manufacturer of pig metal. He was the grandson of Dr. Asa Brunson, noted surgeon of the Revolutionary War. He graduated in 1842 from the medical department of the University of New York. "He was a Democrat, and a man of good sound sense, a characteristic by no means common in those days." He enjoyed the esteem of hosts of friends. He had three sons, Asa, Percy and Edgar.

#### DR. RUDOLF BRUNSON

Son of Jesse Brunson, nephew of Dr. Asa Brunson. His career as a medical practitioner was favorably known in the county. His paternal grandfather was a surgeon in Edinburg College, Scotland, coming to this country during the Revolutionary War. Dr. Rudolf Brunson was

graduated from Jefferson Medical College in Philadelphia in 1858. He first settled in Philadelphia, but that same year he moved to Pine Bluff, where he continued to reside. He served in the Civil War as a surgeon, in Virginia. He was married to Miss Fannie White of Pine Bluff in 1860. When he returned from war he re-entered practice with energy, earning an honored reputation. Four children were born to them, Randolph, John W., Margaret and Ather-ton. He served as delegate to the state and national conventions. He was a member of the Episcopal Church.

#### DR. W. J. CHILDRESS

Dr. Childress was a prominent physician of Pine Bluff. Born in Williamson County, Tennessee, December 12, 1827, he was the son of William G. and Mary Bradley Childress, both natives of Tennessee. The paternal grandfather moved from North Carolina to Nashville, Tennessee, and, as well as can be traced, built the first house in that city. Dr. Childress had a twin brother, Thomas, who became a prominent lawyer of St. Louis. Dr. Childress received his early education in Tennessee, and graduated in 1852 from Jefferson Medical College, Philadelphia, after thorough training. He began practice in Nashville, Tennessee, but in the fall of 1852 moved to Jefferson County, Arkansas, locating at Richland, where he entered upon a professional career. For a brief time he moved to Arkansas County, but returned to Pine Bluff in 1886, where he continued to practice. He was recognized as one of the most prominent physicians of Central Arkansas, and was deservedly popular. In 1854 he married Ellen N. Woodson. They had three children, two of whom survived. Those were Thomas B. and Amanda. The doctor was an influential Democrat and a member of the Catholic Church.

#### DR. J. F. GOREE

Justly considered one of the most eminent of of the medical profession of Jefferson County, Dr. Goree was born in Smith County, Tennessee, son of Dr. James T. and Mary E. Dixon Goree of Marion, Alabama. His father was a prominent physician, who moved to Lincoln County,

\* Presented by the Biography Committee, Woman's Auxiliary to the Arkansas Medical Society, Mrs. Chas. W. Dixon, Gould, and Mrs. C. W. Garrison, Little Rock.



Arkansas, in 1850. J. L. was born in 1853. Dr. Goree was principally reared in Arkansas and received his education at St. Louis University and King's College of Bristol, Tennessee. He took his medical training at Louisville Medical College, where he graduated in 1876, afterward taking an added degree at the University of Kentucky Medical School. He stood a competitive examination against students from four medical colleges, for a hospital position and was the successful competitor. He returned to Lincoln County, Arkansas, to practice, but after a year moved to New Gascony, Jefferson County. His success here was so notable that one of the leading physicians in Pine Bluff offered him a partnership. He accepted this and moved to Pine Bluff for one year, but was persuaded by his old patrons to return to New Gascony. Later he moved back to Pine Bluff, where he continued to reside, and came rapidly to the front in competition against the older established doctors. His services were sought continuously and his fire practice attested to his skill. In 1877 he married Miss Victoria T. Evans, to whom were born 4 children, Don, Evan, Victoria and James L. He was a member of the Secret Society of the Knights of Honor.

#### DR. B. C. HUBBARD

Dr. Hubbard was a citizen of whom Jefferson County felt justly proud, and was an honor to the medical profession. He was born in Campbellsville, Green County, Kentucky, the son of James M. and Sophia (Gaddie) Hubbard. He was the oldest of five children. He was educated in local schools and learned his father's trade of tanning which he followed till 1857, at which time he entered the University of Kentucky at Louisville. He graduated there in 1860 and located for brief periods in two Missouri towns. In 1866 he moved to Arkansas Post, Arkansas County, Arkansas, where he practiced for two years. From there he moved to his location in Jefferson County, where he became one of the most prominent citizens of this section. He originally had little worldly wealth, but soon his energy and skill put him on a level where "he could look at the world struggling beneath him." He was married to Miss Nancy Lilliard of Lewis County. To them one child, Pattie M., was born. She died in 1884. For a short time during the Civil War he was in charge of the Charity Post Hospital, which he conducted with credit to himself. From 1868 to 1872 he served as county and probate judge of Arkansas County. He was a staunch Republican, a member of the Missionary Baptist Church. His

gentleness, skill and personal qualities made him one of the most popular men of the county.

#### DR. A. H. INGRAM

Dr. Ingram was one of the earliest and most skillful physicians of Jefferson County. He was born in Mecklenburgh County, North Carolina, son of John M. and Rebecca Harris Ingram. In 1856 the father moved with his family and slaves to Jefferson County, Arkansas. There were five sons, Dr. A. H. Ingram being the last survivor. Dr. Ingram was born and educated in Mecklenburgh County and attended Davidson College. He became ill at that time and remained an invalid for two years. During this time, he read medicine and later attended the Medical College at Charleston, where he graduated in 1845. He began his practice in Anson County, North Carolina, but moved to Jefferson County, in 1857, locating on the plantation adjoining his father. He later located at Sulphur Springs, moving from there to Pine Bluff where he continued to live and practice. His land holdings became so great, about 4,000 acres, that he almost retired from his profession. He married Miss Caroline P. Steele, of Montgomery County, N. C., by whom he had five children. He was a Mason and a respected man of the community.

#### DR. SAMUEL JONES

Dr. Jones was a man whose name was readily recognized by all of his period, and which stands out prominently in the annals of Jefferson County. He was born in Limestone County, Alabama, December 6, 1822, and died August 3, 1881. His father was Hardeman Jones, a merchant of Huntsville, Alabama, and his mother Jane (Jordan) Jones. Both were originally from Virginia, but moved to Alabama when children. His parents died in mid-life and he was reared by his grandparents, pioneers of Alabama. Dr. Jones, the only son of wealthy parents, had been kept in private schools in Virginia, later being sent to Yale, and in 1851 graduated from the Medical College of Baltimore, Maryland. He practiced his profession at Paint Rock, Jackson County, till 1860, when he moved to Arkansas. He reached Rob Roy by steamboat on December 9th of that year. From that day, he devoted himself to his family and profession in such a way as to be acknowledged as one of the county's most successful men. He was an Episcopalian, active in church and Sunday school. When he became owner of 150 slaves, he gave them a church and a minister. His politics were not pronounced, though he leaned toward the South. He took no part in the conflict, due to physical reasons. His wife was his cousin, Virginia A.



Jones, of Quincy, Florida, whom he married in 1847. She was the daughter of a wealthy and prominent physician. She was a lady of refined tastes, having been educated in Baltimore, Maryland. To them were born two children, a son who died in infancy, and a daughter who became Mrs. Thomas Collier, wife of one of the leading Jefferson County planters.

#### DR. EMMETT M. McGAUGHEY

Dr. McGaughey reached an eminence in his profession, and to attempt to portray his work is out of the biographer's reach. He was born in Pine Bluff, March 21st, 1861, a son of Dr. J. Paul and Mary McGaughey of Alabama and Arkansas respectively. The father was a noted physician, a graduate of Louisville Medical College. Emmett was educated in Pine Bluff and in 1881 began his medical study under Drs. Owen and Alexander of Pine Bluff. Later he attended the University of Louisville. He began his practice in Rob Roy, afterward at Goldman, and then at Cornerstone, where he built a large practice. He was married to Miss Mary Olive in 1889. He was an Episcopalian, a prominent Mason, and a staunch Democrat.

#### DR. MARCELLUS M. McINTOSH

Dr. McIntosh was another bright light of the medical profession of Arkansas, located at Sherrill, Jefferson County. He was born at Palmette, Georgia, November 5, 1859, and was a son of Marcellus E. and Barbara J. (McBride) McIntosh. His father was also a physician of note, and a graduate of the Medical College of Augusta, Ga., in 1845. During the war, the father had served as surgeon in the Confederate Army. The grandfather was also a physician, emigrating from Scotland, and practicing medicine in Morgan County, Alabama. He became one of the largest and wealthiest planters of Alabama. The McIntosh families were known for their eminence as physicians and surgeons. The parents of Marcellus C. were both Baptists. He was one of seven children, five of whom grew to maturity. Marcellus C. began his study of medicine under his father and brother, a graduate of Johns Hopkins. He began when eight years old and continued with them until 1882, when he went to Physicians and Surgeons College, Baltimore. Upon graduation he practiced at Palmyra, Arkansas, then to Greely, where he practiced until 1885. In 1885 he went to Memphis and attended the Memphis Hospital Medical College and served as assistant, virtually in charge of the hospital. In 1886 he entered the United States Marines service temporarily, but returned to Jefferson County, where he con-

tinued to reside. In 1885 he married Miss Mary Hudgens, daughter of William R. Hudgens, but lost his wife in 1889. He was a member of the Missionary Baptist Church, a Royal Arch Mason, and Odd Fellow. As a physician and surgeon, he had no superior and few equals in Central Arkansas.

#### DR. J. M. REYNOLDS

In choosing a life calling, Dr. Reynolds very happily chose one to which he was eminently fitted, and in which he attained front rank. Born in the "Blue Grass" State, February 6, 1847, he was the son of M. B. and Luwilda Thompson Reynolds. He was one of a family of twelve children, nine sons and three daughters. The father was a boat and shoe maker by trade. J. M. Reynolds received his education in the schools of Harrodsburgh, Kentucky, and subsequently attended medical lectures in Louisville, Kentucky, where he graduated in 1882. He married Miss Caroline Dickey in Illinois in 1872. Her parents were from Georgia. He was the father of seven children. His medical practice in Jefferson County was most successful. He was located at Redfield in 1881. He and his wife were Baptists.

#### ALBERT R. SHERRILL, M.D.

Dr. Sherrill was born in Wilson County, Tennessee, February 26, 1826. He was the son of Archibald and Agnes (Moss) Sherrill of the same state and county. He was one of twelve children. The father was a farmer, and both parents were members of the Cumberland Presbyterian Church. He studied in local schools and began his study of medicine under his elder brother, J. F. In 1844-45 he attended medical lectures in Nashville, Tennessee. He moved first to Pulaski County, thence to Jefferson County where he continued to live. He built up a tremendous practice which was gratifying to his great skill. The doctor was well known for his benevolences, and many of the poorer classes had reason to be grateful for his charities. During the Rebellion he entered the Confederate Army and served as surgeon. At one time in his career he suffered great financial loss, but with great pluck and energy he gathered up the remnants of his shattered fortune and rebuilt it. In 1857 he married Mrs. Barrett, an attractive widow. She died several years later. In 1881 he married Miss Elizabeth Griffin, who died a year later. In politics he was a Democrat. For a short time, he was in the drug business in Pine Bluff, but his large practice forced him to give it up. He was a popular man with all stratas of society.



**DR. ARTHUR G. THOMPSON**

Dr. Thompson was born in Rochester, Racine County, Wisconsin, October 13, 1851, son of Attorney and Ann (Carter) Thompson. The parents were of English birth. He graduated from Keokuk Medical College. In 1877 he married Miss Stella E. Fuller of Whitehead County, Illinois. To them were born four children, Azuba, Louis, Carter and Inez. Dr. Thompson owned considerable valuable land in the county, along with property at Sulphur Springs, and stock in mercantile and drug businesses. He was a Republican. Besides being an accomplished physician and skillful surgeon, he was a man of great public and private enterprise.

**GEORGE S. WILLIS, M.D.**

In the galaxy of prominent men who honor Jefferson County with their citizenship, Dr. Willis stands foremost among the medical profession. He was born in Holly Springs, Mississippi, on April 17, 1854, the son of Dr. P. A. and Emily (Jackson) Willis, of Charleston, S. C., and Sussex County, Virginia. The father spent his married life in Holly Springs, Mississippi, having a successful practice there. The parents were members of the Episcopal Church. The mother died when George was three years of age, and the father married a Miss Sarah E. Rutherford. George's only brother, a prominent druggist of Holly Springs, Mississippi, died during the yellow fever scourge in 1878. George was educated in Holly Springs, and Oxford, Mississippi. He entered his father's drug business after finishing school. He learned the business and studied medicine under his father till 1874, when he attended the Missouri Medical College at St. Louis. He then entered the wholesale drug business of A. Wengler & Co., at St. Louis. For a number of years he traveled with this and other drug companies, locating finally in Jefferson County, where he established an extensive practice. He was married to Miss Ida Moore, of Water Valley, Mississippi. One son, Edwin C., was born to this union. Dr. Willis was a member of the Episcopal Church, and a liberal contributor to religious and educational matters. He was high in the order of the Royal Arcanum. He was a Democrat, and it was considered that his influence was strong enough to turn an election in favor of his chosen party.

Note: Dr. Owens and Dr. Alexander were referred to in our resume as leading Pine Bluff physicians of this period. No actual material about them has been found for this report, however.

**PIONEER DOCTORS OF BRADLEY COUNTY \***

By MRS. W. J. HUNT

**DR. J. W. MARTIN**

**Bradley County**

James Wilson Martin, son of James and Edith (Wilson) Martin, was born in the home of his grandfather, Colonel Benjamin Wilson, a veteran of the Indian Wars and of the Revolution, on June 8, 1819, in Harrison County, Virginia. He was the third child in a family of fifteen. He was reared in the Old Stone House which was built in 1709, the first in Ritchie County, Virginia. His father, James Martin, acquired it in 1815 and it remained in the hands of his heirs until 1908 when it was sold to the present owners who still carry out the provision in James Martin's will that any traveler seeking a night's lodgings for himself and beast must be taken care of free of charge. It is a landmark in that part of the state, built of native stone and shows but few "marks of time."

Dr. Martin began the study of medicine under Dr. Clark of Parkersburg, West Virginia, and came to New Orleans in 1843 to attend lectures at Tulane University. When he finished his course at Tulane, he came by boat from New Orleans to Gaines Landing, thence to Bradley County where an older brother had preceded him by a year or two. Here he entered heart and soul into his chosen profession, and helped to build the community which was sparsely settled, and which composed in most part what is now known as Ashley, Drew, Lincoln, Cleveland, Dallas and Calhoun Counties.

Dr. Martin was married to Mary Elizabeth Franklin, daughter of A. S. Franklin, who was one of the ten original settlers of Warren. There were twelve children born into the family, eight of whom lived to maturity. His children, grandchildren, great-grandchildren and great-great-grandchildren still make up a large and substantial part of the town of Warren.

During the war between the States, he was one of the few doctors left in the State. He was in the saddle most of the time during day and night, often away from his family for weeks, and seldom receiving compensation.

Dr. Martin practiced his profession from 1846

\* Presented by the Biography Committee, Woman's Auxiliary to the Arkansas Medical Society, Mrs. Chas. W. Dixon, Gould, and Mrs. C. W. Garrison, Little Rock.



until 1868, when he embarked in the mercantile business, the firm known as Martin and Goodwin. When he was over ninety years of age he was still following his love of hunting and fishing. It was on one of his fishing trips that he had a fall that caused his death. Though he had given many pills and powders, he never took one himself. To his recollection, he never had a fever, a headache, pain or felt badly.

**DR. CHARLES N. MARTIN**  
Warren, Ark.

A son of Dr. J. W. Martin, Dr. Charles N. Martin followed in his father's footsteps, and took over his father's practice in 1878, the year he graduated from Tulane University's School of Medicine.

Dr. Charles married Miss Eunice Bradley, granddaughter of Captain Hugh Bradley, for whom the county was named. There were five children born into the family, three boys and two girls. One son died in infancy, one in his early youth, and the eldest, Herbert B. Martin, was the first Bradley County boy killed in action in France during the First World War. The local American Legion Post takes its name from him.

During the fifty-six years of Dr. Charlie's active practice, he was known for his hospitality. During the first years of his practice there were still various superstitions prevalent among white people as well as negroes. Something had to be done for such patients that had been tricked by an "evil-eyed enemy" or had frogs, lizards, or other crawling or creeping things in their stomachs. Some time a harmless powder would suffice. Other times, more strenuous methods were used. One patient who thought she had a frog in her stomach, the result of a dispute with a wicked neighbor, went to bed to die. He tried to reason with her, all to no avail. It began to look as if die she would. On his next visit to her he went with a toad in his pocket, gave her a dose of ipecac and waited for results. At the proper time, he transferred the toad from his pocket to the jar, and when she had sufficiently recovered he showed her the results. In a short time she was up fully recovered and sang the young doctor's praises and skill, until those who had the "evil eye" and could cast a spell, lost their powers.

Dr. Charlie retired at the age of eighty-one. On February 27, 1944, he celebrated his 90th birthday. He died seven months later—September 7, 1944.

**DR. SAMUEL HALLEY**

Born in 1801. Came to Bradley County, Arkansas, 1848.

**DR. S. M. DAVIS**  
Warren, Ark.

Dr. S. M. Davis was born in Lowndes County, Alabama, February 4, 1839, the son of John and Mary (Pevey) Davis, natives of Georgia. The parents emigrated to Bradley County in 1842.

Dr. Davis was reared on the farm until sixteen years of age. He taught school, and studied medicine at the same time. He attended the Louisville, Kentucky, Medical College in 1868 and 1869, and afterward began practicing in Bradley County. He was married in 1866 to Miss Florence A. Turner, daughter of Judge A. A. Turner. To this couple there were born three children—Ina, Aubert and Zena.

The doctor enlisted in the army in 1861 in Owen's Battalion, and served until the close of the war. He was a member of the Masonic fraternity, and a member of the Methodist Episcopal Church, South. He helped establish the Gannaway and Davis Drug Store, which he maintained until his death in 1917.

**DR. C. C. GANNAWAY**  
Warren, Ark.

There are few men whose history affords a better illustration of what may be accomplished by a determined will and perseverance than that of Dr. C. C. Gannaway. He was born in Monroe County, Mississippi, January 17, 1835, and was but eleven years of age when he came with his parents to Arkansas.

He passed his boyhood days on the farm and received his education in the common schools. He began the study of medicine at an early age, graduating at the New Orleans School of Medicine in the spring of 1861. He later practiced until his enlistment in the army at the breaking out of the war between the States. He enlisted in Company C, Fifth Arkansas Regiment and served until cessation of hostilities. In the fall of 1862, he was made assistant surgeon, and served in Cobb's battalion of artillery until the close of the war.

Dr. Gannaway served as sheriff of the county from 1872 until 1882. He also served as coroner for a few years. On March 3, 1865, he was married to Miss Nancy Ramsey, a native of Louisiana, who came to Arkansas in her youth. Of this union, eight children were born; C. E., J. R., S. L., J. A., Mary N., Ruth N., Henry A., and Emily E. He engaged in the drug business in 1881, the style of the firm being Gannaway and Davis.

His parents, James and Mary (Ederington) Gannaway, were natives respectively of Virginia



CANCER OF THE RECTUM AND  
PELVIC COLON \*

HARRY E. BACON, M.D.,\*\* AND  
ALEXANDER C. HERING, M.D.\*\*\*  
Philadelphia

During the past several years our interest has been centered chiefly in connection with the surgical management of lesions involving the lower bowel and with this in mind we have endeavored to make a particular attempt toward evaluating the rationality of methods relevant to elimination of an abdominal colostomy.

We have selected as the basis of our discussion, a personal series comprising 723 patients with malignancy of which number, 586 were resected by various methods, a resectability or surgical rate of 88.8 per cent. The technique employed is appended in the accompanying table.

It will be noted that 177 or 30.1 per cent required an abdominal colostomy in which number only 139 or 23.7 per cent, was the colostomy permanent. It is admitted that in a few instances an operation integrating a colostomy was chosen in extremely poor risk patients and for those in whom shock seemed imminent while on the operating table, in which event, the Hartman<sup>1</sup> or the Lockhart-Mummery<sup>2</sup> procedure was performed. However, the total mortality rate is slightly less where no colostomy is established as shown in Table II.

Pertinent to colostomy in general, the authors' criticism is directed not only to the unnecessary establishment of a permanent colostomy for all cases as is usually performed, but also to its indiscriminate use in the presence of an inoperable cancer with absence of obstruction or its indicated imminence. Time after time, upon ex-

Table I  
AUTHORS' SERIES

Type of Resection		Number Cases	Number Deaths	Mortality Rate
A.	{ Sigmoidectomy multiple-stage — Mikulicz-Rankin .....	38	3	7.8%
	{ Sigmoidectomy single-stage — Open or closed .....	32	2	6.2%
	{ Sigmoidectomy — Hartman .....	18	2	11.1%
B. Abdominoperineal proctosigmoidectomy without colostomy with preservation of sphincter muscles.....		375	18	4.8%
C.	{ Abdominoperineal excision 1 stage—Miles .....	86	3	3.4%
	{ Abdominoperineal excision 2 stage—Lahey .....	7	1	14.3%
	{ Colostomy & Perineal excision — Lockhart-Mummery .....	26	1	3.8%
	{ Perineo-abdominal excision — Gabriel-Turner .....	2	0	0
	{ Perineal resection — Cuneo-Seneque .....	2	0	0
Total .....		586	30	5.1%

\* Read before the Seventy-second Annual Session, Arkansas Medical Society, Little Rock, April 16, 1948.

\*\* Professor and Head of Department Proctology, Temple University Medical School.

\*\*\* Resident in Proctology, Temple University Hospital.

ploration and encountering an inoperable or an apparently irresectable growth, does the operator feel that he must "do something" and, as a result,—performs a colostomy. This attitude obtained in the not so distant past, in fact, one

and Kentucky. Dr. Gannaway's maternal grandfather was a soldier in the Revolutionary war and was over one hundred years of age at the time of his death.

Dr. Gannaway died March 12, 1900:

**DR. DAVID A. JACKSON**  
**Bradley County**

Dr. David A. Jackson was born in York County, South Carolina, being the eldest of six children of Andrew and Mary Jane (Campbell) Jackson, also natives of York County, and who died in their native state.

After obtaining a common school education, he entered the medical department of Tulane University, and was graduated with an M.D. degree from this institution in 1877. He began

the practice of his profession in Bradley County, Arkansas.

He commanded the respect and confidence of all with whom he came in contact.

**DR. J. G. CABEEN**  
**Warren, Ark.**

In 1825 there were ten families living in the settlement of Warren. Dr. J. G. Cabeen was among this group, and was probably the first doctor in the community.

Dr. Cabeen was the first postmaster. He also served as county and circuit clerk from 1829 to 1830. In 1858 he was named county surveyor.

It is not known where he received his medical knowledge or education—or the year of his death.



Table II  
RESECTION WITH COLOSTOMY (PERMANENT OR TEMPORARY)

Type of Resection	Number Cases	Number Deaths	Mortality Rate
Sigmoidectomy — Mikulicz-Rankin .....	38	3	7.8%
Sigmoidectomy — Hartmann .....	18	2	11.1%
Abdominoperineal excision — Miles .....	86	3	3.4%
Abdominoperineal excision — Lahey .....	7	1	14.3%
Colostomy & Perineal excision — Lockhart-Mummery .....	26	1	3.8%
Perineo-abdominal excision — Garbiel-Turner .....	2	0	0
Total .....	177	10	5.6%

RESECTION WITH NO COLOSTOMY

Type of Resection	Number Cases	Number Deaths	Mortality Rate
Sigmoidectomy — Open or closed .....	32	2	6.2%
Abdominoperineal proctosigmoidectomy — Babcock .....	375	18	4.8%
Perineal resection — Cuneo-Seneque .....	2	0	0
Total .....	409	20	4.7%

surgeon made the assertion that "when in doubt, do a colostomy." There is no doubt of the concurrence of all concerned that an abdominal stoma with removal of the growth is, under no circumstances, to be compared with colostomy where the growth is permitted to remain. A colostomy may prove a distinct liability in young persons and those of advanced age, or those in poor circumstances and devoid of sympathetic understanding who find themselves dependent on the mercy of relatives and friends, or else become a ward liability at a time when hospital beds are at a premium.

Ordinarily, in our department, a permanent colostomy is established only as an integral part of resection for cancerous processes involving the anal canal (three centimeters), and the lowest three centimeters of the rectum. A temporary stoma orad to the lesion is indicated in acute, complete colic obstruction and imminent obstruction, associated diverticulitis with perforation and fistulae of the enteral, vesical and abdominal varieties. It has been our experience that extended resections of adjacent organs such as the small bowel, uterus and adnexa, bladder, ureter, appendix, abdominal parietes, urethra, vagina and prostate, have not necessarily required the establishment of colostomy, although in some instances, a complementary vent may be judiciously employed. Included also is the occasional case where perforation occurs at the site of the lesion as a result of handling in the course of the dissection.

Formerly, resection in the presence of glandular and liver matastases as well as extension to adjacent structures was widely criticized. There

is evidence available that where the primary, or mother growth is removed, the secondary deposits or metastases grow with less rapidity (sarcomata and malignant melanomata being excepted). Lahey<sup>3</sup> observed an average survival rate of 25 months with palliative removal of growths in the presence of moderate degree of metastasis to the liver. He remarks, "these patients live twice as long, are much more comfortable while they live, and die infinitely less distressing deaths." The position taken that radical removal should be accomplished in such circumstances has universal acceptance today, especially by everyone dealing with these cases in any appreciable numbers. It is quite evident that an increased radical attitude relevant to surgical management of advanced malignancy has been taken which assuredly appears justified. For example, in 100 cases of advanced intra-abdominal cancer, Brunschwig<sup>4</sup> noted that 12 per cent averaged two and one-half years, also returning to usual activities; 12 per cent lived up to 12 months receiving palliation, and 23 per cent survived up to 14 months. Sugarbaker<sup>5</sup> considers radicalism justified in view of the fact that 19 patients in a group of 34 advanced cases of the colon and rectum survived up to five years following surgical intervention. Regarding mortality in extended resections associated with operations for rectal and colonic cancer, Glass and Garlock<sup>6</sup> report a 15 per cent mortality in 13 cases of extended resection. There was one recurrence after one year; one was well five years later and nine were alive and well an average of 18 months following operation. Babcock<sup>7</sup> in 1945, reported 29 cases



of extended resection with a mortality of 13.7 per cent.

A point to be considered is the inability of even the most experienced to determine accurately the true character of palpable nodes, and liver metastases. Absence of palpable nodes in the liver is a reliable index although it should be realized that secondary deposits may be deeply situated in the liver substance and demonstrable only at necropsy. Some difficulty arises when small, superficial nodes are evident on the liver surface, inasmuch as they may be of fibrous origin in which event they possess no pathologic significance. It is here that aspiration biopsy may become a valuable adjunctive procedure. Attention is called to the cases reviewed by Mayo and Schlicke<sup>6</sup> wherein the surgeon entertained doubt as to the presence of liver metastasis. At necropsy, 50 per cent revealed secondary growths. Confusion in distinguishing between cancerous nodules, cysts, tubercles, infarcts, hemangiomas and cirrhosis has been adequately discussed by numerous writers. Quite uncertain, and equally misleading is the visible and palpable interpretation of lymph nodes at operation. Experience has proved that large palpable nodes are less often carcinomatous than the small, hard variety. Since such glands may be inflammatory, the size, feel and position, even though definitely presumptive, must not be considered an efficient method of determining malignancy for the purpose of precluding radical excision.

In recent years, much has been written concerning the rationality of preserving the anal sphincter mechanism in an attempt to retain a functional perineal anus. Our experience with proctosigmoidectomy has offered valuable clinical evidence with which to correlate newer physiological concepts relating to this problem. Preservation of the sphincter muscles is not necessarily synonymous with continence, or does it always infer a normal sphincter muscle mechanism.

Our approach to the problem has achieved results to a remarkable degree. By meticulous dissection, the internal, and the bundles comprising the external sphincter are preserved; although the internal sphincter component is preserved, its innervation is undoubtedly interrupted.

The normal, unoperated sigmoid maintains "colonic continence" in the presence of an empty rectum. This type of continence is unaffected by the operation. As we have demonstrated by radiographic follow-up, the pulled-down iliac

sigmoid over a period of time undergoes dilatation, giving the patient an abdomino-pelvic sensation or warning of impending defecation. Sphincteric continence then exists by virtue of voluntary contraction, and before the point of fatigability of the sphincter is reached, the patient can conveniently arrange evacuation.

Gaston<sup>7</sup> in some interesting studies on patients undergoing these operations, has pointed out that when the sigmoid is substituted for the rectum, preserving the anal sphincters, the normal reflex (between rectum and external sphincter) is not reestablished between sphincter and sigmoid. In order that reflex sphincteric continence be preserved, it would be necessary, according to Gaston, to retain some part of the rectum. This, of course, is not done in proctosigmoidectomy. However, as has been stated above, the patient gradually develops a reflex urge following proctosigmoidectomy, does not wear a pad, nor does he experience nocturnal soiling. Dietary indiscretions may be somewhat difficult to control. Pertinent to sigmoidectomy and proctosigmoidectomy, we have previously outlined the degree of radicality achieved by each method, for comparative purposes.<sup>10 11</sup>

Other factors such as the incidence of local recurrence<sup>11 13</sup> complications and sequelae,<sup>12 15</sup> vesicle dysfunction and sexual impotence have been discussed.<sup>14</sup>

Certainly, the most important phase is the rate of survival in terms of methods to eliminate colostomy. Relative to sigmoidectomy, Dixon<sup>16</sup> cites a five-year survival rate of 67 per cent for non-palliative resections, whereas for proctosigmoidectomy, we have reported an incidence of 52.6 per cent for non-palliative resections, with which those for palliation have been included.

In conclusion it is our opinion that only in a moderate proportion of cases of cancer involving the anus, rectum and sigmoid, is a colostomy required. Our approach to the surgical management of malignancy in this region may be summarized as follows:

- A. All lesions of the middle and upper sigmoid are resected by immediate establishment of continuity or by the Mikulicz-Rankin exteriorization method;
- B. All lesions of the lower third of the sigmoid, rectosigmoid, and ampullary portion of the rectum by an abdominoperineal proctosigmoidectomy, without colostomy and with preservation of the sphincter musculature;



- C. All lesions of the low rectum and anal canal (6 cm.) by an abdominoperineal excision of the classical method described by Miles.

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#### CORRESPONDENCE

To the Editor:

I had the pleasure of attending the South Central Regional Conference, sponsored by the A. M. A. Council of Medical Service held at the Mayo Hotel in Tulsa, Oklahoma, on November 13 and 14. Representatives were present from the Arkansas Medical Society, The Kansas Medical Society, the Louisiana Medical Society, The Kansas Medical Society, The Missouri State Medical Association, The Oklahoma State Medical Association and The State Medical Association of Texas.

The meeting was presided over by Dr. James R. McVay, chairman of the Council on Medical Service of The American Medical Association. Dr. C. E. Northcutt, president of The Oklahoma State Medical Association welcomed the representatives to the conference. Dr. McVay discussed the problem of "why we should get together at this particular meeting." He discussed the problems that are facing the profession in regard to the possibility of a National Emergency. He particularly stressed the importance of discussing ways and means of providing medical care for our patients. He stressed the need of a better distribution of our doctors and particularly of better care for patients in rural areas.

A round table discussion was then held of the problem of what we expect from the American Medical Association and the Council on Medical Service. Dr. George A. Schenewerk, chairman of the Committee on Public Relations of the State Medical Association of Texas presided. In this discussion everyone felt free to express his opinion in regard to the relationship between the American Medical Association and the various State Medical Societies. Representatives of the A. M. A. agreed that there was room for criticism. He stressed the fact that every area has its own problems and that only a broad policy can be promulgated by the American Medical Association.

At the luncheon meeting Dr. James C. Sargent, chairman of the Council on National Emergency Medical Service, A. M. A., was represented by Dr. Joseph A. Lawrence, who talked in regard to the possibility of a National Emergency.

In the afternoon a round table discussion of present day problems of Medical Practice was held with particular emphasis on the relation-



ship between the physician and the Medical School and the physician in the hospital.

These problems were discussed by Dr. Franklin D. Murphy, Dean of The University of Kansas Medical Center; Daniel J. Murphy of New Orleans; Dr. J. D. McCarthy of Omaha, Nebraska, who is a member of the Council on Medical Service.

The question of the encroachment of the hospital on the practice of medicine was discussed at length. It was generally agreed that there are many problems in this regard which need to be worked out in each community.

The next discussion was in regard to the National Health Assembly with particular emphasis on The Ewing Report. It was brought out that many inaccuracies occur in The Ewing Report and that this report has been made to serve the purpose of men in high offices who have the feeling that some form of socialization of medicine.

At the Saturday evening session the group was addressed by Mr. John I. Taylor, president of the Oklahoma Farm Bureau Federation. He talked quite frankly to the doctors and in a good natured manner he offered criticisms of the profession. His observations were based upon his experience with a large group of farmers in Oklahoma and his intimate knowledge of their problems as far as the ruling of Medical Care is concerned.

On Sunday morning the session was concerned with Rural Health problems. This discussion was presided over by Dr. Allen T. Stewart, who is on the committee on Rural Medical Service of the A. M. A. Among the discussions were questions in regard to what it takes to provide adequate Health Care. The farmers' view was presented by Mr. Walter Hammond of the Texas Farm Bureau. Mr. James Monroe, Hale Center, Texas, made a very interesting discussion in regard to the cooperative hospital. It seems that a number of these have been formed in Texas and are solving certain problems in regard to rural Medical Care. Local Health Councils and their organizations were discussed by Ray McIntyre, field representative of Missouri State Medical Association. Representatives of the Rural Health Committees of all six states made brief talks reporting what has been done in their states in regard to providing better Rural Medical Care.

The general impression obtained from this most interesting meeting may be divided into the following headings:

1. It seemed to be the consensus of a num-

ber of medical leaders that more meetings like this should be held in which problems of the distribution of Medical Care should be discussed instead of scientific programs.

2. It seemed to be generally agreed that there is a real problem in regard to the distribution of Medical Care and that much of the criticism that has been directed at the Medical Profession is due to the improper distribution of Medical Care rather than to any inadequacy on the part of the doctors in rendering professional service.

It was generally agreed that the profession should pay more attention to the education of the public in regard to the type of Medical Care they are now receiving and that information should be decimated in regard to the possibilities that may arise in the case we are faced with socialized medicine. One of the most impressive discussions was that by Dr. Murphy of the Kansas Medical Center who has devised a plan for increasing the number of rural physicians in his area.

I believe we should all have impressed upon us the fact with all our modern scientific advances and with the development of new hospitals and new techniques for diagnosis of treatment, we should bear in mind the fact that we still have a problem of providing Medical Service for a lot of people who are not able to reach large Medical Centers.

Yours very truly,

Roy I. Millard, M.D.

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## SUPERIOR WEIGHT GAINS IN PREMATURES

When 100 premature infants were given an enzymic casein hydrolysate and dextrose mixed with breast milk, the infants tolerated the mixture well. There were no signs of digestive disturbance. In every instance, infants receiving the supplement showed a greater gain in weight than did infants receiving only breast milk.\* Protolysate, Mead Johnson & Company's enzymic digest of casein, is effective when used as a supplement to breast milk for premature infants.

For literature and professional samples of protolysate, write Mead Johnson & Company, Evansville 21, Indiana.

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\* Jorpes, J. E.; Magnusson, J. H., and Wretling, A.: Casein Hydrolysate: A Supplementary Food for Premature Infants, *Lancet* 251:228-232 (Aug. 17) 1946.



THE JOURNAL  
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EDITORIAL

THE DRIFT TOWARD A SOCIALIST  
DEMOCRACY

The consensus of editorial writers whose opinions have become available on the address given by President Truman to the Congress on January 5 indicates their point of view that the President is considerably left of what used to be called the New Deal. The Congress, if it should adopt any considerable number of the recommendations made, would move the nation away from its present status as a republic or a true democracy into a condition which resembles what is called in Europe a socialist democracy. Adhering to the pattern followed by other nations in this drift, President Truman said:

We must spare no effort to raise the general level of health in this country. In a nation as rich as ours it is a shocking fact that tens of millions lack adequate medical care. We are short of doctors, hospitals and nurses. We must remedy these shortages. Moreover we need, and we must have without further delay, a system of prepaid medical insurance which will enable

every American to afford good medical care.

A careful analysis of the statement quoted indicates the necessity for an absolute denial of the statement made that "tens of millions lack adequate medical care." Such statements should not be made without the ability to produce the evidence in their support. As far as can be determined by all available studies, and particularly recent studies, that statement is not supported by competent evidence.

The President says that we are short of doctors, hospitals and nurses. Actually the United States, as was proved in a statement published in these columns recently, has more doctors in proportion to the population than any other country in the world, whether with or without a system of socialized medicine. True, there are faults of distribution of physicians which need to be remedied. The faults, however, are related to economic rather than other factors. The Congress has passed and the government has implemented the Hill-Burton Act for increasing hospitals about as rapidly as they can be increased. The chief difficulty at present is the difficulty of finding personnel to staff such hospitals and the economic conditions sufficient to support such hospitals.

The American Nurses' Association, the American Red Cross, the American Surgical Association, the American College of Surgeons, the American Medical Association and, in fact, all organizations in this country interested in the utilization of nurses have been working on techniques for increasing the available supply of nurses, and enrollments were 5,000 more in 1948 than in 1947; the total answer is not yet apparent. If the federal government or any of its agencies has an answer to the problem of the nurse supply, that answer will be welcomed by the medical profession. Many of the nurses themselves insist that it is simply a question of adequate remuneration in comparison with what other employees, particularly those affiliated with unions, are paid for their services.

The final sentence of Mr. Truman's recommendation brings some interesting thoughts. The first time he uses the words "adequate medical care" and the second time "good medical care," whereas Mr. Ewing usually says "proper medical care." What is needed at this time is a definition by some appropriate agency of these terms "adequate," "good" and "proper." There is plenty of evidence that the kind of medical care given in other countries under such systems as that proposed for the United States has no



resemblance to the quality of medical service that now prevails in the United States. When diagnosis is made on the basis of one or two questions and when therapy is provided on the same basis, when doctors try to see from 40 to 100 patients a day in order to give the kind of medical care that can be given under such circumstances—and that is the case in many of the countries that have these systems—the medical care cannot be characterized as "adequate," "good" or "proper." Apparently what the proponents need is some adequate, good or proper term to characterize the kind of medical care that they refer to. The medical profession contends that it is inadequate, bad and improper. The one positive characteristic that it has is the fact that it is provided by the government following taxation of all of the workers of the country; a proper term would be nationalized, bureaucratic, governmental or socialized medical care.

Following the address by President Truman, a bill was introduced into the Senate bearing the names of Senators Murray, McGrath, Wagner, Chavez, Taylor and Pepper and into the House of Representatives by Congressman Dingell, which assurance from Senator Murray's office indicates is identical with Senate Bill 1320 except for the change in date and a new number, which is Senate Bill 5. As far as can be determined, there is no cry for this type of government medical service from the vast majority of the middle class people of the United States. Ours apparently is the only nation in the world still possessing a large middle class. Nor is there any insistent demand for this legislation from rural groups. In the meantime, moreover, statements just made available from competent sources indicate that at the present time 52,000,000 Americans are insured against the costs of hospitalization, 31,000,000 against loss of income due to disability, 26,000,000 against surgical expense and 9,000,000 against medical expense. This is the most rapid rate of growth of any form of prepaid medical insurance on a voluntary basis that the world has ever known. It answers the President's request—but it is not compulsory!

—Journal of the American Medical Association, January 15, 1949.

### WAKE UP, DOCTOR! R. B. Robins, M.D.

The threat of the socialization of medicine in America was never so great as it is today. Your freedom is at stake in this session of Congress.

Powerful political leaders, backed by President Truman, are determined to force compulsory health insurance down the throats of the American people.

The geratest danger we confront in this campaign is the false lure of "something-for-nothing" which is being dangled before our people. It is fake magic and we must conduct a campaign of education to let the people see the tragic consequences of trading their liberty for a spurious security. The American people will not knowingly let themselves be regimented, but they are busy with their own affairs, working to support their families and maintain their homes. It is the duty of the medical profession to take the leadership in this fight.

Each doctor in the American Medical Association has been assessed \$25 for this campaign. The convictions and the loyalty of American physicians will be publicly recorded by the response to this assessment. Now and then an older physician will say that he does not care to pay his assessment, because his days are about over in the practice of medicine and the program, if consummated by the government, will not affect him. It is, of course, discouraging to note that there are any physicians in America who are so selfish and who have so little regard for the future of those who are to follow them, but we know the thinking physician will see this through to a victory.

### ARKANSAS ACADEMY OF GENERAL PRACTICE TO MEET APRIL 13 IN LITTLE ROCK

The Arkansas Chapter of the American Academy of General Practice will meet Wednesday, 2 p. m., April 13, at the Marion Hotel in Little Rock. A post-graduate refresher course in general surgery, general medicine, obstetrics, gynecology and pediatrics will be given by specialists in each field. The meeting will terminate with a banquet for the members and their wives in the evening with Mr. Mac F. Cahal, Executive Secretary, American Academy of General Practice, Kansas City, as the feature speaker.

Any member of the Arkansas Medical Society who does not limit his practice to any one field of medicine or surgery is eligible for membership in the Arkansas Academy of General Practice. Applications for membership should be addressed to Dr. L. H. McDaniel of Tyronza, Arkansas.

### NATIONAL CANCER CONFERENCE, MEMPHIS, FEBRUARY 25-27, 1949

Members of the Society interested in the field



of cancer control are advised that the American Cancer Society in conjunction with the National Cancer Institute of the United States Public Health Service will sponsor a National Cancer Conference at the Hotel Peabody, Memphis, February 25th, 26th and 27th. The conference will be composed of from 300 to 400 invited delegates, the country's outstanding clinicians, investigators, professional and lay educators in cancer and cancer control officials, meeting in general sessions and in small round table panels to discuss the controversial aspects of cancer and to offer such constructive criticism in the cancer control program currently under way as may be necessary. Such a meeting will afford a great opportunity for free discussion of ideas and information. The program for the sessions will shortly be made available. All members of the Society are cordially invited to attend the sessions of the conference.

The National Conference on Medical Service will meet at the Palmer House, Chicago, February 6th. Among the subjects to be presented are: "Medical Program of the United Mine Workers of America Welfare and Retirement Fund," Warren F. Draper; "What's Happening in Washington This Week," James D. Boyle; "Function of the State Medical Society in Postgraduate Work," C. W. Smith, and "Can Corporations Such as Hospitals Legally Engage in the Practice of Medicine?", Wilbur Bailey. It is hoped that Arkansas physicians interested in the fields of medical service and legislation will find it possible to attend this important meeting.

## EDITORIAL COMMENT

### PROFESSIONAL EDUCATION IN CANCER

Continuing its policy of providing educational facilities to the physicians through its special committee, the Arkansas Division, American Cancer Society, announces the forthcoming distribution of a monograph series on "The Early Recognition of Cancer." Brochure No. 1, "The Cancer Problem," by Dr. Shields Warren will be mailed about January 7th, and others in the series will follow at bi-monthly intervals. This series has been arranged by the Professional Education Section of the American Cancer Society and time spent in the study of these booklets will be productive of much good to the cancer program in Arkansas, to the public and to the individual physician. The Arkansas Division, American Cancer Society, has, in addition, recently mailed a pamphlet on the radiation treatment of cancer which its professional education

committee feels will be useful to Arkansas physicians in determining what cases to select for this type of treatment, and what results may be expected from its intelligent application.

## RANDOM THOUGHTS OF THE SECRETARY

December 20th. For the record, we feel that it should be stated that the ham which Chamberlain received today came as the result of a lucky number held rather than as an indication of his histrionic ability.

December 27th. Tonight becoming, for the very first time, a hospital statistic and more than casually acquainted with certain pre-operative measures as are a matter of routine to the nursing personnel.

December 28th. With recollection only as heavy, heavy feet and of an unanswered question: "Heve they started?", Foster and Hawkins remove our gall bladder and appendix, procedures suddenly advanced from the innocuous academic phase to that of intense personal interest. Spending the rest of the day as does any post-operative case, our semiconscious remarks a matter of levity to professional watchers only.

December 29th. Today full realization of a laparotomy comes to us from the abdomen in particular but from more remote anatomical regions as well, carrying out well as we can the instructions to breathe deeply and to exercise our leg muscles, wanting no emboli and likewise hoping that we may be spared a Miller-Abbott tube. In the early ambulation process, sitting in a manner on the edge of the bed.

\*December 30th. The world becomes brighter this day and we take to a chair for a long fifteen minute interval and later talk with Councilor Hunt about operations, assessments and other matters over our bedside telephone.

December 31st. Returning to normalcy, sitting up and taking a few steps; welcoming visitors, enjoying food but almost a complication in evisceration through reading "Mr. Roberts" which Krock brings, a story, apparently too, too true of navy life.

January 1st. With 1949 we resolve to practice more of the art along with much of the science of medicine since we have had the opportunity to be treated so well as a surgical case, for which appreciation in full degree to surgeons, nurses, visitors and relatives.

January 2nd. Anticipating our request to go home, our surgeons desert us this day and we hesitate to accept the decision of Blair, on duty for the group, who says "sure, you can go home."

January 3rd. With gleeful spirits and thanks to all for everything, we get our first ambulance ride as a patient and go home.

January 5th. Restricted in but minor degree about the house and accepting, with proper modesty, the acclaim of those who tell us we have been a "good patient."

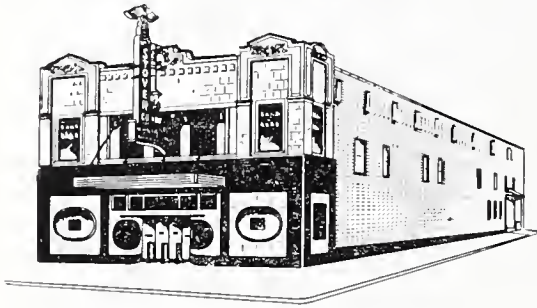
January 6th. To the Dining Car this night for steaks and gradually do we assume our proper niche in the affairs of life.

January 7th. With tenderness Foster removes the sutures—probably too busy to pull them out knot end first, but thanks anyway.

January 10th. Doing most all things now and so away by rail to Tucson for a few days of winter in the desert.



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# TUBERCULOSIS ABSTRACTS

## *A Review for Physicians*

ISSUED MONTHLY BY THE NATIONAL TUBERCULOSIS ASSOCIATION

### COEXISTING PULMONARY COCCIDIOIDOMYCOSIS AND TUBERCULOSIS

UNTIL army maneuvers exposed many thousands to the disease, coccidioidomycosis was confined chiefly to a few scattered areas in the southwestern part of the United States. Infected individuals are now widely disseminated and the fact that the pulmonary lesions resemble those of tuberculosis with which it may be coexistent increases the difficulty of recognition.

The following is a case report in which caseous pneumonic tuberculosis with cavitation developed in a patient with coccidioidal cavity in the opposite lung. Had the previous medical history not been known, the finding of tubercle bacilli in the sputum together with the X-ray picture would have led to a diagnosis of bilateral cavity tuberculosis, and the coccidioidomycosis would have been overlooked.

This case raises the question whether it would not be wise to do routine examinations for both coccidioides immitis and tubercle bacilli in all cases of pulmonary disease with cavitation. This suggestion is in line with the conclusions reached by other investigators.

#### Case Report

I. F., a 24-year-old Negro, was admitted to the hospital in December, 1945. Pulmonary tuberculosis had been diagnosed on routine X-ray examination at a separation center that showed infiltration in both apices and in the right third anterior interspace.

During the war the patient had taken part in desert maneuvers in southern California from June to December, 1943, but had had no respiratory illnesses. The past medical history was noncontributory. The family history was negative for tuberculosis.

On admission the only complaint was intermittent, slight pain in the left side of the chest for the past few months. Physical examination revealed a well-developed man who did not appear ill. There was no dyspnea or cyanosis, and examination of the heart and lungs was negative. X-ray examination showed minimal infiltration in both apices. Planigrams showed a small thin-walled cavity just above the right clavicle.

Significant laboratory findings were as follows:

A tuberculin skin test using purified protein derivative was negative in the first strength and weakly positive in the second strength. Coccidioidin skin test in a 1:1000 dilution was negative on two occasions. Sputum concentrates, examination of the gastric contents, one sputum culture and one guinea-pig inoculation were negative for tubercle bacilli. One 72-hour concentrate was negative for fungi. The sedimentation rate was 8 mm. in one hour. Urinalysis showed a trace of albumin. Blood counts were within normal limits.

The patient left the hospital against advice in March, and the discharge diagnosis was chronic pulmonary tuberculosis, moderately advanced.

The patient returned to the hospital on June 13, with the chief complaint of bilateral chest pain and a slightly productive cough. Physical examination and X-ray films of the chest showed no essential change since the previous admission. There was the same isolated, thin-walled cavity in the right apex and a small area of infiltration in the left apex.

A coccidioidin skin test was positive on July 2 in a 1:1000 dilution and positive on July 5 in a 1:100 dilution. Sputum studies for acid-fast bacilli, including seven direct smears, five concentrates and three gastric lavages, were negative. On July 15 the sputum was found to contain spherules of *Coccidioides immitis* on direct smear, and this was confirmed by culture on July 20. Serologic tests for active coccidioidomycosis were performed. The complement-fixation test was four plus in 1:2 and 1:4 dilutions. The precipitin tests were all negative. It was concluded that the findings indicated a coccidioidal infection. His symptoms subsided and he was discharged on February 19, 1947. He returned seven months later because of weight loss and



hemoptysis. X-ray showed cavitation in both upper lobes. Sputum examination showed acid-fast bacilli on both smear and culture. Serologic tests for coccidioidal infection were repeated at this time. The complement-fixation test was four plus in dilutions of 1:2, 1:4 and 1:8 and two plus in a dilution of 1:16. The precipitin tests were negative in all dilutions. These results were interpreted as not being high enough to indicate a coccidioidal dissemination. **C. immitis** was again found in the sputum on smear and culture.

The patient left the hospital against advice on November 1, before streptomycin therapy could be instituted.

### Summary

A case is presented in which coccidioidal cavitation was observed for fifteen months in a patient who subsequently developed a caseous cavitary tuberculosis in the opposite lung, with a positive sputum test for tubercle bacilli.

That tuberculosis and coccidioidomycosis may both cause pulmonary cavitation is now a well-known fact. Since the diseases may coexist in the same patient, it is advisable to check routinely for both tubercle bacilli and **Coccidioides immitis** in all patients with pulmonary cavitation.

Coexisting Pulmonary Coccidioidomycosis and Tuberculosis, Lieutenant Robert S. Study (M.C.) U.S.N.R. and Philip Morgenstern, M.D., New England Journal of Medicine, June 10, 1948.

## BLUE SHIELD IS THE ARKANSAS DOCTORS' OWN PROGRAM. FOLLOWING ARE SOME OF THE \$64 QUESTIONS THEY ASK ABOUT THEIR PLAN

Q. What is Blue Cross? What is Blue Shield?

A. Blue Cross signifies the hospital benefits of our program, and Blue Cross plans are voluntary, non-profit, pre-payment hospital plans, affiliated nationally through the central Blue Cross Commission. Blue Shield signifies the medical benefits of our program, and Blue Shield plans are voluntary, non-profit, pre-payment medical plans, affiliated nationally through the central Blue Shield Commission.

Q. Is this an indemnity program?

A. The Blue Shield part of our program consists of indemnity surgical benefits, including orthopedic and obstetrical benefits.

Q. Must a Blue Shield member be a hospital patient in order to receive benefits?

A. No. Blue Shield benefits are paid in the hospital, doctor's office, or the home.

Q. Are any services paid in a doctor's office?

A. Yes. Any procedure included in the schedule of indemnity surgical benefits done in the doctor's office is paid for.

Q. Are X-rays covered under Blue Shield?

A. Yes. X-rays for accident cases are included in the Blue Shield benefits of the program, 50% of X-ray services up to \$15.

Q. Does Blue Shield cover assistant surgeons' fees?

A. No. Blue Shield pays only the operating surgeon and the anesthetist.

Q. Who determines whether cases are eligible for payment?

A. Blue Shield cases will be reviewed by a professional committee appointed by the Board of Trustees.

Q. Are conditions existing prior to membership in the plan covered?

A. No. Any physical condition known to exist or for which medical advice was sought prior to application for membership in the plan cannot be covered.

Q. Who may enroll in Blue Shield?

A. Enrollment is available only through a person's place of employment and is limited to organizations having five or more full-time, permanent employees on their payroll. It is anticipated that other types of enrollment will be developed as the program expands.

Q. Is it anticipated that Blue Shield will expand its services?

A. Yes. It is anticipated that medical care of some type will be added as soon as it is financially and actuarially feasible.

Q. What is the corporate structure of Blue Shield and who establishes the policies of the plan?

A. In Arkansas, Blue Cross and Blue Shield benefits are provided by one corporation, Arkansas Medical and Hospital Service, Inc. Hospitals, doctors, and the general public are equally represented on the governing body of the corporation, the Board of Trustees. The Board of Trustees formulates the policy for the business operations of the plan, the Executive Committee, representing equally hospitals, the medical profession and the public, carries out policies relating to both medical and hospital aspects of the plan. As outlined in the by-laws, the ultimate responsibility for the corporation rests with the Arkansas Medical Society and the Arkansas Medical Association.

Q. When do participating physicians receive payment for care rendered to Blue Shield members?

A. Payment is made to participating physicians twice each month and in the usual case



## PROCEEDINGS OF SOCIETIES

Washington County Medical Society met at the Washington Hotel in Fayetteville on January 4 with Paul Young, Jr., Architect, presenting plans for construction of the Washington County Hospital. The following officers were elected: President, Ralph Weddington; Vice-president, W. A. Fowler; Secretary-treasurer, J. W. Dorman; Delegate, Fount Richardson, and Alternate, R. H. Huntington.

J. W. Dorman, Secretary.

The Pulaski County Medical Society met on January 3rd for the following program: "Blue Cross and Blue Shield for Arkansas," Mr. Jack Redheffer, Ellery C. Gay and Charles R. Henry, Little Rock.

Edgar J. Easley, M.D., Secretary.

The annual banquet session of Sebastian County Medical Society was held at Fort Smith January 11th with Coyne Campbell, Oklahoma City, speaking on "Modern Concepts of Psychiatry."

J. B. Stewart, Secretary.

The Pulaski County Medical Society was addressed January 3rd by Mr. Jack Redheffer on "Blue Cross and Blue Shield for Arkansas."

E. J. Easley, Secretary.

Hot Spring County Medical Society has elected the following officers: President, R. V. McCray; Vice-president, C. F. Peters; Secretary-treasurer, John R. Cole; Delegate, H. L. Brown, and Alternate, C. R. Ellis.

The Greene-Clay County Medical Society met

payment will be made to the participating physician within 30 days of the receipt of the completed physician's report.

Q. Why is it necessary for the plan to contract with physicians?

A. (a) Contracts with physicians enables the plan to pay its portion of the cost of the service rendered by the participating physician directly to the physician. (b) The participating physician's contract also enables the plan to limit payments for care to qualified doctors of medicine as participating physicians. (c) The corporate structure of the organization requires that there be a minimum guarantee and sponsorship on the part of the medical profession.

Participating hospitals sign the same sort of contract.

in dinner session at Paragould December 4th with Mr. Phil Herget speaking on "Medical Legislation."

W. McD. Lamb, Secretary.

Sevier County Medical Society has elected the following officers: President, R. C. Dickinson; Vice-president, C. N. Jones; Secretary-treasurer, R. B. Dickinson; Delegate, R. B. Dickinson, and Alternate, Rodger C. Dickinson.

The Five-County Medical Society met at Murfreesboro December 7th electing the following officers: President, N. M. Peacock, Ashdown; Vice-president, M. D. Duncan, Murfreesboro, and Secretary-treasurer, R. S. Dickinson, Horatio. The Society will next meet at Mena in March.

Benton County Medical Society has elected the following officers: President, K. A. Siler, Siloam Springs; Vice-president, J. L. Jackson, Bentonville, and Secretary-treasurer, Geo. M. Love, Rogers.

Independence County Medical Society has elected the following officers: President, Hickman Calaway; Vice-president, Charles Taylor; Secretary-treasurer, Paul Gray; Program Chairman, W. J. Ketzi; Delegate, O. J. T. Johnston, and Alternate, L. T. Evans.

The Craighead-Poinsett County Medical Society was addressed January 6th by the following: L. H. McDaniel, Tyronza, and J. H. McCurry, Cash, "The Recent Interim Session of the American Medical Association"; Charles King, Memphis, "Cancer Clinics"; Reverend Marshall Wingfield, "Experiences as a Hospital Patient."

J. H. McCurry, M.D., Secretary.

The Craighead-Poinsett County Medical Society was addressed December 2nd by Frank Kumpuris, Little Rock, and Fred Hames, Pine Bluff, on "Carcinoma of the Fundus of the Uterus."

J. H. McCurry, Secretary.

Pope-Yell County Medical Society met in Russellville January 13th with a film on the use of Digitalis composing the scientific program.

W. O. Young, Secretary.

The Fifth Councilor District Medical Society met in dinner session at El Dorado on January 13th for the following program: "Pickpocket Medicine," R. B. Robins and "Diabetic Diarrhea,"



W. F. Drummond, Shreveport, Louisiana. Officers elected: President, Jos. B. Wharton, Jr., El Dorado; Vice-president, John H. Wilson, Magnolia, and Secretary-treasurer, Henry G. Hearnberger, Stephens.

Howard-Pike County Medical Society has elected the following officers: President, M. D. Duncan, Murfreesboro; Vice-president, J. G. Waldrop, Nashville; Secretary-treasurer, Edwin V. Dildy, Nashville; Delegate, W. H. Toland, Nashville, and Alternate, F. F. Ferguson, Nashville.

## PERSONALS AND NEWS ITEMS

Fred H. Krock, Fort Smith, and Henry G. Hollenberg, Little Rock, attended the recent meeting of the Southern Surgical Association at White Sulphur Springs. Guests of the Association were L. P. Good, Texarkana, and Robert Watson, Little Rock.

C. H. Reagan, Marked Tree, who has accepted an appointment with the Veterans Administration at Decatur, Alabama, was honored by a community farewell party December 17th.

H. H. Smith, Fort Smith, has retired from active practice and has moved to Santa Barbara, California.

H. E. Murry has been elected a member of the Executive Committee of the Miller-Bowie County Tumor Clinic at Texarkana.

R. L. Turnbow is now associated with B. James Reaves in the practice of obstetrics at Little Rock.

W. R. Brooksher, Fort Smith, has been appointed a member of the Committee on Social Security, Chamber of Commerce of the United States.

"Cave Sickness: A New Disease Entity?" by A. M. Washburn, Little Rock; John H. Tuohy, Little Rock, and Elmer L. Davis, Foreman, appeared in the November, 1948, issue of the American Journal of Public Health.

BORN—On January 1st, 1949, Melvin R. McCaskill, Jr., to Dr. and Mrs. Melvin R. McCaskill, Little Rock.

R. B. Robins recently addressed the Camden Lions Club on "Compulsory Health Insurance."

Dr. and Mrs. I. N. McCollum, Conway, are spending the winter at Daytona Beach, Florida.

D. L. Owens has been elected a director of the Commercial Bank at Harrison.

R. O. Norris has been elected vice-president of the Bank of Tuckerman.

HERMAN W. HUNDLING, age 57, Little Rock, died January 8th. Born in Iowa, April 2, 1891, he graduated from the University of Iowa College of Medicine in 1915 and served an internship at the Montreal General Hospital. He then accepted a fellowship in surgery at the Mayo Clinic, interrupting his training there for military service in World War I. After the close of hostilities he was with the American Red Cross medical mission in Serbia before returning to the Mayo Clinic to complete his fellowship. He was a co-founder of the Polyclinic at Memphis and became associated with Drs. Dibrell and Melson at Little Rock January 1, 1929. He was associate professor of surgery at the University of Arkansas School of Medicine, a past-president of the Pulaski County Medical Society, Fellow of the American College of Surgeons, a Fellow of the American Medical Association, a member of the Southern Medical Association, a member of the Board of Stewards of the Second Presbyterian Church, a member of Nu Sigma Nu and of the Little Rock Country Club. Surviving relatives are his wife and two daughters.

WILLIAM D. BURCH, age 67 years, died at Hughes October 2nd, 1948. Born at Fulton, Mississippi, he graduated from the University of Tennessee College of Medicine in 1917 and served an internship in the Baptist Hospital, Memphis. He was a member of the Baptist church and of the Masonic bodies. Surviving are his wife and four brothers, one of whom is Dr. N. B. Burch of Hot Springs National Park.

CHARLES E. SPIVEY, age 70, died at his home in Hamburg, January 13th. Born in Thomaston, Georgia, he graduated from Baylor University College of Medicine in 1910 and assumed charge of the Crossett Hospital as medical director the same year. Retiring from active practice in 1945, he moved to Hamburg in September, 1946. He was a fellow of the



American Medical Association, a member of the American Association of Industrial Surgeons, the Association of Railway Surgeons, of the Methodist church and of the Masonic bodies. Surviving relatives are his wife and a son.

## RESOLUTION

WHEREAS the Honorable Carl E. Bailey, deceased on October 23, 1948, a resident of Arkansas for many years, serving with distinction in prominent offices of state and possessed of many personal friends,

WHEREAS this outstanding citizen faithfully served the Arkansas Medical Society as Legal Advisor during the past two years and through his kind advice helped bring about a consolidation of medical thought within this State which is reflected in better medical service for the State and all its people,

WHEREAS we shall cherish the memory of this fine citizen, remember him for his faithful service and for his personal charm,

WHEREAS we hold heartfelt sympathy for the bereaved family of the deceased,

THEREFORE BE IT RESOLVED that the Council of the Arkansas Medical Society speaking for the entire medical profession take this means of expressing our sympathy in the loss of our friend, that a copy of this Resolution be incorporated in the minutes of this organization and a copy forwarded to the family.

Ellery C. Gay, M.D.,  
L. H. McDaniel, M.D.,  
R. B. Robins, M.D.,  
R. C. Dickinson, M.D.,  
Joe F. Shuffield, M.D.

## WOMAN'S AUXILIARY NEWS

Mrs. Gus Allison reviewed "Smile, Please," by Mildred Spurrier Topp before 65 members of the Pulaski County Medical Auxiliary at its meeting in the Junior League House December 15th.

The speaker's table was decorated beautifully in silver and white. The silver basket containing silver balls and silvered greenery was flanked on either side by large white tapers tied with silver ornaments.

The individual tables were decorated with giant varicolored tapers encircled by holly wreaths, and the mantles were covered with holly interspersed with Christmas ornaments.

Hostesses for the meeting were: Chairman,

Mrs. Ralph E. McLochlin; Mrs. Harvey Shipp, Mrs. W. J. Schwarz, Mrs. E. Lloyd Wilbur, Mrs. Ewell I. Thompson, and Mrs. J. R. Warden.

Mrs. Mason Lawson reported for Mrs. Chas. Oates that \$144.00 was made for the Student Loan Fund through the annual Rummage Sale.

President Mrs. Carroll Shukers reported that the Student Nurse sponsored by the Auxiliary received her cap in November with high honors.  
Emily Donaldson,  
State Publicity Secretary.

The Board of the Woman's Auxiliary to the Arkansas Medical Society met December 4th at the Woman's City Club in Little Rock.

The meeting was called to order by the President, Mrs. Mason G. Lawson, Little Rock, who turned the meeting over to Dr. Louis K. Hundley, Pine Bluff, chairman of the advisory committee, and Dr. H. Clay Chenault, Vice-president, University of Arkansas, who discussed plans for a medical center in conjunction with the State Hospital. Round table discussion followed.

Emily Donaldson,  
State Publicity Secretary.

Mrs. Charles Henry of Little Rock, first vice-president of the Arkansas Medical Society Auxiliary, talked on impending medical legislation at the January luncheon meeting of the Auxiliary to the Jefferson County Medical Society held Friday at the country club. She was introduced by Mrs. Howard Stern, state legislation chairman. Mrs. C. W. Anderson, Auxiliary president, presided.

Mrs. Mason G. Lawson, State Auxiliary president, who accompanied Mrs. Henry to Pine Bluff, was introduced and made an impromptu talk.

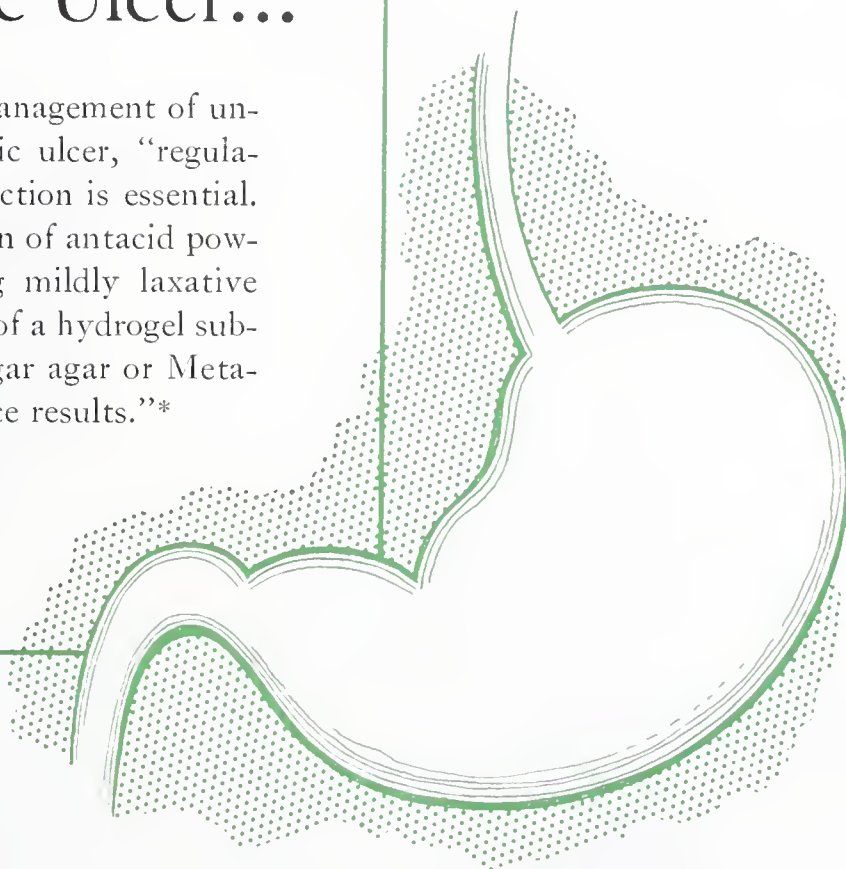
Committees were appointed for the annual benefit which will embrace a luncheon, style show and bridge to be held Feb. 12 at the Hotel Pines ballroom. Mrs. Louis K. Hundley is chairman for this annual event.

Twenty-two were present for the luncheon including the visitors and—Mrs. Carl Adams, Mrs. C. K. Caruthers, Mrs. Hunter Causey, Mrs. O. W. Clark, Mrs. Arthur Fowler, Jr., Mrs. Fred Hames, Mrs. Clyde Hart, Jr., Mrs. Louis K. Hundley, Mrs. W. T. Lowe, Mrs. Ross Maynard, Mrs. Harry McEntire, Mrs. H. J. Morris, Mrs. Charles Reid, Mrs. James T. Rhyne, Mrs. Allen Russell, Mrs. J. S. Spillyards, Mrs. Howard Stern, Mrs. George Talbot, Mrs. John K. Walker and Mrs. Anderson.



# Bowel Regulation in Peptic Ulcer...

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**SEARLE** RESEARCH IN THE SERVICE OF MEDICINE

\*Gerendasy, J.: Modern Treatment of Peptic Ulcer, J. M. Soc. New Jersey #3:84 (March) 1946.



## BOOK REVIEW

**Essentials of Pathology:** By Lawrence W. Smith, M.D., F.C.A.P., formerly Professor of Pathology, Temple University School of Medicine, Associate Professor of Pathology, Cornell University Medical School, and Assistant Professor of Pathology, Harvard Medical College, Corresponding member of the Royal Flemish Medical Academy of Belgium and Edwin S. Gault, M.D., F.C.A.P., Associate Professor of Pathology and Bacteriology, Temple University School of Medicine with a foreword by the late James Ewing, M.D., Memorial Hospital, New York City. Third Edition. Pp. 764. The Blakiston Company, Philadelphia and Toronto, 1948.

In the third edition of this well known text book the text is arranged as in previous editions. The authors retain the case history method of presenting their subjects. The material is well organized, in a manner which is useful to the student and practitioner alike.

An outstanding feature of the present edition is the illustrations. In the color plates the colors depicted are more true to the actual stained sections than usual. The microphotographs are excellent. The volume is recommended if only for its illustrations, although the written text is also very well presented.

## FOR SALE

Westinghouse two tube 100 MA X-Ray equipment complete with tilt table, bucky, transformer, control, and timer. This unit has been reconditioned and is in excellent shape, also one reconditioned Cambridge Simpli-trol Model Electrocardiograph. Address Box 365 this journal.

★ ★ ★ ★ ★ ★



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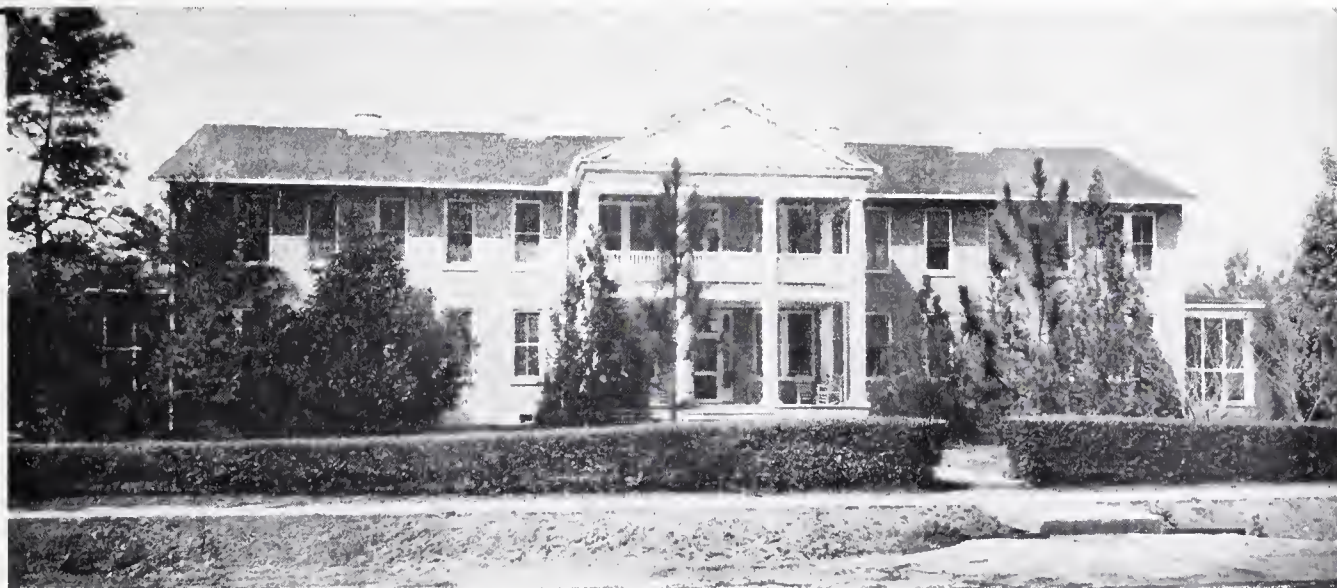
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No. 10

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Laryngoscope, Feb. 1935, Vol. XLV, No. 2, 149-154; Laryngoscope, Jan. 1937, Vol. XLVII, No. 1, 58-60; Proc. Soc. Exp. Biol. and Med., 1934, 32-241; N. Y. State Journ. Med., Vol. 35, 6-1-25, No. 11, 590-592.



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No. 10

### GASTROSCOPY: A DIAGNOSTIC AID

ALFRED KAHN, JR., M.D.

Little Rock

#### Introduction

The flexible gastroscope has become adjunct to the gastro-enterologist since its popularization by Schindler (9). It is neither a difficult instrument to employ nor is it dangerous to the patient. However, because the interpretation of the views of the stomach require experience, it is not an instrument to be used without careful training.

Familiarization of the profession with the potentialities of this endoscope should lead to its wider use, and in turn, a further reduction in the number of undiagnosed and misdiagnosed gastric cases. The gastroscope cannot supplant the X-ray and other proven means of gastric diagnosis, it is a useful supplement to them.

#### Indications

Any case of serious epigastric pain in which no diagnosis is established after careful clinical and roentgenological study merits gastroscopy. Some lesions are gastroscopically visible that are not ordinarily detected by X-ray; gastritis is such a disease. Gastroscopically, three main types of gastritis are recognized; acute, chronic hyperthrophic, chronic atrophic. Schindler's book on gastritis gives excellent discussions of the signs and symptoms encountered in these cases (10).

A major problem often poses to the gastroscopist is to determine whether the gastric ulcer seen roentgenologically is benign or malignant (11). Malignant ulcers usually have rolled or thickened edges; frequently, they bleed just at the edge instead of from the depths of the crater. The benign ulcer is punched out and has a sharply defined border; often it may be associated with notching of the angulus or a deep fold running across the greater curvature; deep mucosal hemorrhages or pigment spots suggest benignity.

Cummings (4) has shown that benign gastric ulcers should heal on an average of 42 days. Any delay in healing should be an indication for

gastroscopic examination if it has not already been done. Moreover it should be pointed out that many malignant ulcers will decrease in size, and the so-called "therapeutic test" is a dangerous criterion (7).

Gastric anacidity and pernicious anemia have been shown to be associated with definite increase in gastric pathology. In 211 cases of pernicious anemia, Rigler found that 8% had carcinoma and 7% had polyps (5) (8). Comfort (3) reports that 45% of 277 cases of gastric carcinoma had achlorhydria. It is statistically worthwhile to X-ray and/or gastroscope these two categories.

Biopsies of questionable gastric lesions have been performed with the modified flexible gastroscope. Kenamore (private communication) and Benedict (2) have made successful biopsies with instruments of their own invention.

Unexplained bleeding from the upper gastrointestinal tract should be gastroscopically investigated. This examination has been carried out very soon after the cessation of hemorrhage but is not recommended ordinarily.

Post-operative gastric resections may develop pain. Anastomotic ulcers and post-operative gastritis are often readily visible endoscopically when they are not seen roentgenologically.

#### Contra-indications

Gastroscopy should not be performed in the presence of stenosing esophageal disease. The Gastroscope, in such cases, despite its flexibility, may perforate the esophagus.

Since gastroscopy is an elective procedure, it should not be done on patients with upper respiratory infections, particularly, if fever or sore throat is present. These infections usually interfere with proper breathing during the procedure. Secondly, instrumentation in the presence of a minor infection may spread the infection or open the passage for serious secondary invaders.

Great debility contra-indicates gastroscopy, as the procedure is not without some physical drain on the patient.

Serious complicating diseases may contra-indicate this type of examination—as myocardial disease, etc.



### Technique of Gastroscopy

The patient takes nothing by mouth for 12 hours preceding the examination. One hour before the examination, the patient is given a pre-operative dose of morphine sulfate and atrophine sulfate (usually 1/6 grain and 1/150 grain respectively) in the right deltoid region. The injection is usually accompanied by a nembutal suppository (3 grains). The patient rests quietly until the examination.

Local anesthesia is achieved by topical application of 2% pontocaine with a few drops of 1:1000 adrenalin by applicator stick. This is followed by the injection of 8 cc. of 2% pontocaine into the esophagus through a small perforated soft rubber tube.

An Ewald tube is passed into the stomach; the patient is then tilted head down and the stomach drained. The gastric fluid is collected and analyzed.

In a darkened room, the patient lies on his left side with the left elbow under his chest. The gastroscope is passed into the esophagus over the operator's guiding left index finger. The scope usually passes readily into the stomach, once the lower pharynx is passed. If the scope meets obstruction no force should be used. If the patient is unco-operative more sedative should be used or another attempt made.

When the gastroscope is in the stomach, the stomach is inflated with air. Visualization is then begun. Poor visibility or absent visibility is usually present near the fundus and in parts of the pyloric antrum.

Too often the impression is held that gastroscopy is a major undertaking; it is not. It can be done on an outpatient basis. Observation is usually necessary only until the pre-operative medication wears off. Aside from the rare incidence of perforation, the only main hazard is a reaction to pontocaine, which is ordinarily effectively combatted with barbiturates.

Gastroscopy does not compete with X-ray; they are most effectively used together. Benedict (1) in analyzing 53 cases found both methods equally accurate in 21 cases, incorrect in 8; the gastroscope was more correct in 13 cases and the X-ray in 11. In 100 cases of gastric carcinoma that Moersch (6) collected, gastroscopy was wrong in 20 cases compared to 42 cases of X-ray error. In short, neither technique is perfect, therefore both methods of investigation are recommended in difficult cases.

### Conclusions

1. Gastroscopy is a safe, simple diagnostic procedure.

2. The gastroscopy should be utilized more widely as all present methods of gastric investigation including X-ray are subject to some error.

3. The indications for gastroscopy are enumerated.

4. The technique of gastroscopy is surveyed.

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11. Schindler, Rudolf. Gastroscopic Differentiation of Ulcers. *Gastroenterology* X: 231, 1948.

### CORRESPONDENCE

Dr. J. D. Riley, Superintendent  
Arkansas Tuberculosis Sanatorium  
State Sanatorium, Arkansas

Dear Dr. Riley:

You may be assured that during my tenure in office I shall oppose any legislation purporting to regiment our people with their physicians, regardless of the form of any bill having for its ultimate result the enactment of socialized medical legislation. I have always felt that any efforts curtailing individual initiative, free enterprise and open competition would be detrimental to the economic welfare and the domestic relations of our Democracy.

Your friend,  
Boyd Tackett.



## PRIMARY PELVIC ABSCESS DUE TO STAPHYLOCOCCUS ALBUS

HOWARD S. STERN M.D. & HAROLD J. MORRIS, M.D.  
Pine Bluff

Pelvic abscess is a relatively common occurrence in both sexes following infection of the peritoneum and/or various abdominal viscera. In these cases, the offending organisms are chiefly *E. coli* or the gonococcus with or without secondary invaders. Pelvic abscess due solely to *Staphylococcus Albus* is extremely uncommon, particularly so when there is no primary lesion to account for it. Goodall, in a comprehensive discussion of adnexal infections, states that *S. aureus* is a common offender in tubal infections, but fails to mention *S. albus*. Papp and Tepperberg reported a case of pelvic abscess due to *S. albus* in a male following a wound of the penis.

The authors present a case of pelvic abscess from which a pure culture of *S. albus* was obtained; in which there was no apparent primary lesion for at least seven years previously.

### ABSTRACT

Mrs. J. W. W., a thirty-year-old, married, white female, presented herself to H. J. M. at his office in March 1946, complaining of moderate pain in the right lower quadrant of her abdomen, and a sensation of pressure in the pelvis. The pain was not constant and it varied in intensity. It was not referred and did not radiate, but was always found somewhat below McBurney's point. There were no chills, fever, urinary, or bowel complaints. She had lost four or five pounds in the past month. Menstrual history was normal. She was the mother of two normal children. In 1939 the patient had undergone laparotomy, but due to the fact that the surgeon was dead and his records destroyed, it was not determined what had been done to her. She stated that her tubes had either been removed or tied, and her appendix removed.

Pelvic examination revealed a small, nontender mass in the right adnexal region, and a slightly enlarged, normally mobile uterus. She was placed on a conservative routine and did well until April 26, when she began having pain again in her right pelvis, low grade fever, and slight vaginal bleeding. At this time the mass was slightly larger and quite tender. Physical examination was otherwise negative.

After the patient entered the hospital, she was placed on a regime of sulfadiazine and penicillin therapy, plus heat and intravenous fluids. Morphine was required for the relief of pain. On admission, a catheterized urine speci-

men was negative except for a slight trace of albumin and an occasional red blood cell. Rbc 3,850,000; hemoglobin 13.5 gm; color index 1.1; Wbc 12,200; Schilling 0-0-0-0-4-80-16-0; no malaria. Sedimentation curve was vertical (30mm in 30 minutes, 33 mm in 60 minutes). Her condition became steadily worse. Temperature became septic, spiking at 103, and the pulse rate increased correspondingly. She developed a severe secondary anemia which required repeated transfusions. The small mass grew at a great rate, and by May 6th, extended above the umbilicus. Examination at that time by H. S. S., as surgical consultant, revealed a gravely ill patient. A tender, fluctuant mass was palpable through the abdomen, in the pelvis. On vaginal exam, the right adnexal region was filled with the same fluctuant, tender mass. There was no presentation to the vagina either through the cul-de-sac or lateral vaginal wall. The uterus was slightly enlarged and pushed to the left. A diagnosis of pelvic abscess was made and immediate operation advised.

Under cyclopropane anesthesia, the abdomen was opened in the midline and numerous adhesions were encountered between small bowel and the pelvic organs. The uterus was somewhat enlarged and firm. Mushrooming out of the right pelvis was a large round mass, covered with adherent small bowel, under which was a thin grey membrane that ruptured on slight manipulation. About 300-400 cc of thick reddish pus were obtained and a specimen sent to be cultured. 100,000 units of penicillin in five cc of distilled water were placed in the abscess cavity, and the abdomen was closed over two Penrose drains.

Her postoperative course was uneventful. Within a few hours her temperature was normal, and except for a slight elevation for a few days, remained so. She was discharged, recovered, on the seventeenth postoperative day. From the pus a pure culture of *Staphylococcus albus* was obtained.

### DISCUSSION

The authors have presented the foregoing case as a matter of interest due to the fact that pelvic abscess from pure *S. albus* is quite rare. A review of the Index Medicus for the past eleven years fails to reveal any reports of a similar case. Furthermore, the apparent absence of any primary lesion gives ground to a fertile field for speculation. One wonders whether or not *S. albus* could remain encysted in a pelvis for seven years (since the previous surgery) only to flare up at pelvic examination in



the present illness. It is well known that certain organisms, notably the spore formers, are prone to do this. However, the *Staphylococcus* are quite hardy bacteria, and much arguing could be done on that score. The possibility of a break in asepsis at the previous surgery could then explain the source. Hite and Dack, in a study of the survival of pyogenic organisms in suture material state that *S. albus* did not survive exposure to alcohol or toluol (the liquids in which suture material is ordinarily preserved) for sufficient time to be of any significance in infections due to the contamination of ligatures. The ligation or removal of the tubes at the earlier operation should preclude the recent entrance of infection through the birth canal.

---

### RESOLUTION

WHEREAS, Almighty God has seen fit to take from us our friend and colleague, Dr. William R. Orr, we, the members of the Phillips County Medical Society, deeply regret his untimely passing.

WHEREAS, as a physician and surgeon he has brought unfailing devotion and professional honesty to those in need of his services without regard for personal sacrifice, and has through a lifetime of adherence to the finest concepts of medical service, won the devotion and respect of his colleagues, as well as the gratitude of the community he served so faithfully.

BE IT RESOLVED, that the members of the Phillips County Medical Society express to his family their deepest sympathy in the loss they have sustained, and of its great respect for his ability as a physician, surgeon and colleague; that a copy of these resolutions be made matter of record in the minutes of the Society; that a copy be sent to his family, and that a copy be sent to the Journal of the Arkansas Medical Society.

Henry H. Rightor, M. D.  
Geo. R. Storm, M. D.  
J. W. Butts.

---

### OUACHITA COUNTY

Dr. and Mrs. Tom Meek of Camden entertained the Ouachita County Medical Society with a turkey dinner at their home February 3rd. The program was as follows: "Intussusception," W. G. Cooper, Little Rock. Sound motion picture on "The Examination for Cancer of the Breast," was shown.

The next regular meeting will be held at the Camden Hospital Thursday night, March 3.

## COMMITTEE ON MEDICAL SERVICE AND PUBLIC RELATIONS

CHAS. R. HENRY, Chairman

The need for a means for prepayment in the general health field has been known for some time and was recognized by the Arkansas Medical Society, who in April 1946, appointed a committee to investigate the possibilities of a state prepayment plan for Arkansas. This committee, together with a like committee from the Arkansas Hospital Association, formed a Joint Committee on prepayment and received authority from their associations to put such a plan into being. This Joint Committee chose public representatives equal to those representing each association.

The first approach to the problem was the sponsorship of a commercial insurance company, but as this proved to be generally unsatisfactory to all parties, the medical profession, the hospitals and the public, approval of this program was withdrawn.

The Joint Committee resumed its study of the problem in August of 1948, keeping as a primary objective to develop a prepayment plan to relieve from the minds of the contributors the fear and thought that in case of necessity they would be unable to select their own physician, surgeon, or hospital, but would be forced to rely on public facilities or private charity.

The Committee was, at this date, of the unanimous opinion that the formation of a non-profit plan, developed along Blue Cross-Blue Shield lines, wherein doctors and hospitals accept responsibility of guarantee of services to the public, would be accepted by all parties concerned.

The next few months were spent in the organizational phase of this development and on December 3, 1948, the corporation was formed.

Arkansas Medical and Hospital Service, Inc., (Arkansas' Blue Cross-Blue Shield Plan) is a non-profit corporation organized by a Joint Committee on prepayment representing the medical profession and the hospitals in the interest of the public. It operates under the non-profit insurance laws of Arkansas, and has supervision of the State Insurance Commissioner. The Plan provides for hospital benefits and indemnity benefits for surgical, obstetrical and orthopedic care by the payment by the public of a monthly nominal fee, said services being guaranteed by doctors of medicine, as participating physicians, and hospitals, as participating hospitals.

It is a voluntary community service operated



by a Board of Trustees equally represented by the medical profession, the hospitals and the public.

The Board of Trustees of Arkansas Medical and Hospital Service employed as its director, Mr. J. L. Redheffer, formerly assistant director of Blue Cross-Blue Shield Plans in Kansas City, Missouri, and who had been with the Kansas City Plan for ten years. The Arkansas Plan was approved as a Blue Cross Plan by the Blue Cross Commission and the Trustees of the American Hospital Association on December 11, 1948, and was approved as a Blue Shield Plan by the Blue Shield Commission at its meeting in Chicago in January this year.

Information and material and participating physician's contracts have been set to every member of the Arkansas Medical Society, and material and participating hospital contracts have been forwarded to all licensed hospitals in the state. The majority of the hospitals throughout the state and a large number of the medical profession have already signed contracts and returned them to the Plan.

The interest in this non-profit program from the public is high and the Plan is already enrolling employed groups of people throughout the state. Also, many national concerns having employees in the state have been contacted and arrangements made for the enrollment of their employees; a few of these being the Southwestern Bell Telephone Company, Magnolia Petroleum Company, Shell Oil Company, Tide Water Oil Company, Federal Reserve Bank, International Shoe Company, and many others. The enrollment of people in the Plan is confined to employed groups of five or more people during the early days of the program but already plans are being made for the offering of the service to rural areas through cooperation with the various farm organizations and rural agencies operating in the state. It is anticipated that the plan will enroll upwards of 25,000 people during the first year of its operation and it is necessary that all members of the profession become familiar with the operation and benefits of the program. Also, all doctors are being urged to forward their participating physician's contracts to the Plan in order that the names of all doctors in the state be included on the participating physicians' roster which will be issued to the public.

Enrollment of people will be state-wide and in order that members of the Plan seeking care may

be able to go to their own physician for the service doctors should quickly forward their participating physician's contracts to Blue Cross and Blue Shield.

As this report goes to press, members of this committee are preparing to actively participate, at the state level, in the National Educational Campaign of the American Medical Association.

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## OBITUARY

JOE O. LESLIE, age 59 years died at his home in Marshall February 9th after an illness of a few weeks. A graduate of Kansas City College of Medicine and Surgery in 1924, he first practiced at St. Joe and later moved to Marshall. He was a member of the Methodist church. Surviving relatives are his wife and two sons.

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## CORRESPONDENCE

Monticello, Arkansas  
February 2, 1949

To the Editor:

I am wondering if the members of our Society are aware of the work being done for us in our fight against Federal Compulsory Health Insurance. I refer to work by two outstanding Arkansas organizations: (1) The Arkansas Free Enterprise Association, and (2) The Arkansas Public Expenditure Council. These two organizations composed of leading, conservative citizens have taken active, vigorous stand against Federal medicine. I believe all members of our Society should give our membership and full support to them. Not only are they shoulder to shoulder with us in our fight, but they are combatting other forces of socialism and communism. I say they deserve our support.

Sincerely,

C. Lewis Hyatt, M. D.

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## ANNUAL BANQUET SESSION

The annual banquet session of the Society will be held at the Marion Hotel, Little Rock, Friday evening, April 15th, with dancing to follow. A social hour will precede the banquet. Tickets for the banquet will be available at the Registration Desk.



THE JOURNAL  
OF THE  
ARKANSAS MEDICAL SOCIETY

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W. R. BROOKSHER, M. D., Editor

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EDITORIAL

THE 1949 ANNUAL SESSION

This issue of The Journal contains the pre-  
liminary program of the Seventy-third Annual  
Session of the Arkansas Medical Society to be  
held at the Robinson Auditorium, Little Rock,  
April 14th, 15th and 16th, 1949. Printing sched-  
ules require that this preliminary publication  
appear in the March issue of The Journal rather  
than the April issue if the information on the  
forthcoming annual session is to be made avail-  
able to the membership in sufficient time for  
them to make plans to attend. The desirability  
of advance hotel reservations is suggested.

In accordance with recommendations of the  
House of Delegates made at its 1949 annual  
session, reports of most of the committees of  
the Society are published in this issue for ad-  
vance information of the membership and, in  
particular, of the delegates. The Reference  
Committee will study these reports in advance  
of the session. Published reports of committees  
will not be read at the House of Delegates but  
committee chairmen may amend or add to such

reports. The reports as herewith published will  
be furnished the delegates at the first session of  
the House of Delegates. Members are urged  
to retain this copy of The Journal and bring it  
to the annual session as sufficient copies of com-  
mittee reports will not be ample for use of all  
members in attendance. In another innovation  
the House of Delegates will meet at 4:00 P. M.,  
Thursday, April 14th, thus affording more time  
for scientific program.

INDIVIDUAL RESPONSIBILITY

FOUNT RICHARDSON, M.D.

Fayetteville

Practically everyone had a lesson given to  
them at the recent national election, the doctors  
included. When all the figures and trends had  
been analyzed we might admit that the farm  
vote, the labor vote, the "left" vote, and the  
party vote all had their influences. But the fact  
remained that the people of American stepped  
to the polls and elected a man that they could  
understand and who could understand them.

No group of people or no profession is in a  
better situation to meet and know these same  
people than the physicians. The physician has  
a fight to prevent his personal freedom being  
removed from him by state medicine. It is there-  
fore necessary that we take that problem to that  
final authority—the people.

The physician is sometime apt to forget that  
he, too, is a laborer. The earning of the physi-  
cian comes directly from the skill of his hand  
which is guided by a highly trained, technical,  
mind. We are laborers and our patients labor.  
The influence of a physician can be felt and  
measured by his influence with his patients. If  
we rob our patients, they can and will demand,  
state medicine. If the patient is treated as a  
fellow laborer we can, and will have his influence  
for medicine. As privately practised any physi-  
cian who overcharges a patient is driving that  
patient into the ranks of state medicine. Any  
physician who refuses to treat a patient without  
just reason is guilty of sabotage to his own pro-  
fession.

State medicine is not an absolute certainty  
under the presidency of Mr. Truman and if some  
such bill is passed by the Senate (Senate Bill No.  
5) we have no one but ourselves, individually, to  
blame.



**RANDOM THOUGHTS OF THE SECRETARY**

January 11th. Late this morning into Tucson because of wrecks and winter but down to the Hertz office for a car, surprised without our driver's license, so away to the courthouse to take the Arizona driver's license test, a more arduous undertaking than is Arkansas licensure, successfully answering the 52 questions but must report that Peggy missed none while we missed three, and thence away to Nogales, Arizona, and Nogales, Sonora, visiting the marvelous Mission San Xavier, whose erection by Franciscan padres and Indians who did not understand each other's language, is in itself a marvel, while the beauty of architecture commands the admiration of all after nearly two hundred years.

January 12th. Visiting the beauty spots of Tucson, the Saguaro National Monument, the University of Arizona and others, there being little of sun and quite a bit of sharp Arkansas wind about in this land of sunshine.

January 14th. Tonight revisiting Juarez where Gonzales still holds forth at Central Cafe and where Carlos has progressed from tending bar to owning his own place and photographic mention in Holiday.

January 16th. The day ends at Mansfield tonight just before the clock strikes twelve and we are glad to be home from a vacation which had much of rest and enjoyment but practically none of the sun we had hoped to see.

January 17th. Back to the activities which we are pleased to call work but which have many other appellations from our colleagues, grateful for a happy recovery and the right to again enjoy the practice of our profession.

January 23rd. Meeting with the committee to study committees, a session worthy in its scope and attainments.

February 3rd. Leisurely by rail to Kansas City and thence by a most comfortable Pullman night to Chicago.

February 4th. All day with the Chancellors of the College of Radiology where humor is at a premium and effort and drudgery on the agenda the first order of business, our efforts to talk with Charlie Henry go for naught but we get a call from Ellery Gay who can relay our message.

February 5th. Again for the day with the College and in the evening, the day's work completed, just sitting about the comfortable Drake lobby, a far cry from the hustle, confusion and interminable lines of a loop hotel we know well as does many another medical meeting registrant.

February 6th. Aboard, for the first time in many years, the Wabash's Banner Blue Limited, and with speed and comfort to Saint Louis, aboard the Frisco for the great pleasure of having Lewis Webster Jones, our favorite University president, for dinner and pleasant and informative conversation until bedtime.

February 11th. With Foltz and Goldstein to Berryville for a diagnostic cancer clinic, finding the incidence of malignancy higher than at any previous session we have attended, enjoying the sunshine and the gayeties of the occasion and home in time to catch up with some of the day's duties.

February 13th. Ignored by Braniff this morning, driving to Clarksville and then with Earle Hunt and the incomparable Rip, who serves as the foil for Earle's quips for the entire trip, to meet with the Council in final evaluation of legislative matters which concern chiropractors and basic science laws, we hope.

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**CORRESPONDENCE**

Morrilton, Arkansas  
January 28, 1949

To the Editor:

I am enclosing my check for \$25 in payment of my assessment by the American Medical Association fund for the purpose of opposing the enactment of socialized medicine. I'm glad to pay my part.

In forty-four years of practice in a rural community, I have never seen any instance in which I thought state medicine would have brought better service, though there have been many instances in which better roads, more and better hospital facilities and better-trained physicians would have resulted in better service. But the roads are being improved, we are getting more hospitals and not many physicians like myself are left in practice. What is most needed, I think, is that more of the young men now coming into practice be induced to locate in communities where they can serve larger numbers of the rural population. The young doctors that I know are well-trained, have high ideals and conceptions of their duty, but lack an understanding of the opportunities and satisfaction of a country practice.

Sincerely,

T. W. Hardison, M. D.

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**PUBLIC MEETING**

Thursday Evening, April 14th, 8:00 P. M.,  
Robinson Auditorium

The Pulaski County Medical Society is arranging a public meeting which will present the viewpoint of the Arkansas Medical Society on compulsory health insurance and other governmental proposals for medical care as contrasted with voluntary prepayment plans. The medical profession's educational campaign will be discussed. This will be an informative meeting and members should make plans to attend. The complete program will be announced at a later date.



# TUBERCULOSIS ABSTRACTS

## *A Review for Physicians*

ISSUED MONTHLY BY THE NATIONAL TUBERCULOSIS ASSOCIATION

### PRIMARY INFECTION AND PROGRESSIVE TUBERCULOSIS

THE decreasing incidence of tuberculosis in the United States has been accompanied by changes in the epidemiology of the disease which are of interest and concern to all physicians. Primary tuberculosis among adults, once relatively rare, is now increasing and in doing so presents new problems for clinicians and public health workers.

In the pathogenesis of progressive tuberculosis, pulmonary or extrapulmonary, it has been a general assumption that there are mainly two separate danger periods. The first, at the time directly following primary infection; another, dependent on a secondary exogenous infection or an endogenous exacerbation of lesions formed during the primary infection and separated by a period of latency from the primary infection. Primary infection in early childhood exacts a certain toll of mortality from disseminated tuberculosis, miliary or otherwise, from meningitis and from direct extension from the primary complex. This is generally accepted and seems well substantiated by the early peak in tuberculosis mortality before the age of five. Whether this hazard from the primary infection exists only during childhood or continues throughout life is difficult to know.

The problem becomes more urgent, of course, with the decrease of childhood infection and the concurrent increase of primary infections in adults. Other questions are whether or not progressive pulmonary tuberculosis in adults is in a significant proportion of cases the direct consequence of primary infection, and, if so, whether or not primary progressive pulmonary tuberculosis in the adult can be differentiated clinically and roentgenologically from that disease which is caused by a secondary (endogenous or exogenous) infection in the presence of a healed primary complex.

In an impressive series of reports from the Scandinavian countries, the relation between primary infection and progressive pulmonary tuberculosis in adults has been studied. Complete unanimity of opinion does not exist, but most,

if not all, contemporary Scandinavian authors now agree that:

- (1) Primary infection occurs frequently after the age of 18 or 20.
- (2) Primary infection in adults is much more frequently accompanied by clinical symptoms, such as grip-like symptoms, fever and malaise, than is usually recognized in this country.
- (3) Primary infection in adults is frequently associated, particularly in young women, with erythema nodosum (in Sweden, erythema nodosum is reportable at tuberculosis), with exudative pleurisy and with parenchymal changes in the lung demonstrable by X-ray examination.
- (4) A large proportion of all cases of "genuine" (reinfection type), tuberculosis is caused directly by primary infection.

- (5) While primary infection can be diagnosed with certainty only by tuberculin conversion, erythema nodosum and certain roentgenological changes should strongly suggest the diagnosis.

Whether or not the Scandinavian observations are representative for conditions in the United States is not known because an insufficient number of studies concerned with this problem have been published here.

It is known that erythema nodosum in association with primary tuberculosis is rare in this country. The shift of tuberculin conversion to higher age groups is as well known here as in Scandinavia. For the rest, there is little evidence for or against the Scandinavian conclusions. According to a few reports, a diagnostic differentiation between primary and secondary



tuberculosis is impossible without tuberculin tests proving recent conversion. This should not imply an absence of differences. Competent observers state that essentially the same anatomical differences exist in adults between primary and post-primary tuberculosis as in children. Clinical symptoms and objective signs of disease seem to be observed, in the early period following conversion, more frequently in Scandinavia than in the United States. It is uncertain whether this difference is in fact or in interpretation.

Most mass surveys in the United States have been made without tuberculin tests, and few have repeatedly examined the same persons. Serial tuberculin tests and repeated filming are necessary for disclosing the relation between primary infection and progressive tuberculosis. It is hoped that the large study on nurses, now being carried on under the joint auspices of the National Tuberculosis Association and the U. S. Public Health Service, will provide material suitable for analysis from a pathogenetic point of view.

It should be obvious that pathogenetic knowledge is not of academic interest only—it is unavoidably the foundation for all anti-tuberculosis work and will determine the effectiveness of such work.

It is possible that what is true in Scandinavia is not true in the United States. **Tuberculosis changes with time and place.** Every country must investigate its local epidemiological conditions; none can accept, without proof, the findings in some other region.

BCG vaccination is the logical consequence of the epidemiological situation in Scandinavia. If it should prove to be true for the United States that a large proportion of progressive tuberculosis in adults develops independently of a second exogenous infection, our present strategy of anti-tuberculosis work would need fundamental reforms.

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Primary Infection and Progressive Tuberculosis, Editorial, Max Pinner, M.D., The American Review of Tuberculosis, October, 1947.

## PROCEEDINGS OF SOCIETIES

The Benton County Medical Society met in dinner session at Rogers February 10th for the following program: "The Hospital and the Community," H. H. Buckelew, Rogers.

Crittenden County Medical Society has elected the following officers: President, A. C. Parker, Sr.; Vice-president, Ralph Hamilton; Secretary-treasurer, Robt. H. Ray; Delegates, A. C. Parker, Sr., and Alternate, Ralph Hamilton.

Washington County Medical Society has elected the following officers: President, Ralph E. Weddington; Vice-president, W. A. Fowler; Secretary-treasurer, J. W. Dorman; Delegate, Fount Richardson, and Alternate, R. H. Huntington.

The Pulaski County Medical Society met February 7th for a Clinico-pathological Conference with the following as participants: Alvin W. Strauss, Alfred Kahn, Jr., D. A. Rhinehart, Henry G. Hollenberg, and Anderson Nettleship.

Independence County Medical Society has elected the following officers: President, W. H. Calaway; Vice-president, Charles Taylor; Secretary-treasurer, Paul Gray; Delegate, O. J. T. Johnston, and Alternate, L. T. Evans.

Polk County Medical Society has elected the following officers: President, Frank Lee, Vandervoort; Vice-president, Pierre Redman, Mena, and Secretary-treasurer, H. N. Rogers, Mena.

The Arkansas State Board of Health has elected the following officers: President, Thos. Wilson, Wynne; Vice-president, J. P. Price, Jr., Monticello, and Secretary, T. T. Ross, Little Rock.

Hempstead County Medical Society has elected the following officers: President, James W. Branch; Vice-president, George Wright; Secretary-treasurer, Walter Sims, and Delegate, Jim McKenzie.

Greene-Clay County Medical Society has elected the following officers: President, A. H. Maddox; Vice-president, W. E. Turner, Jr.; Secretary-treasurer, W. M. Lamb; Delegate, A. D. Garner, and Alternate, J. E. McGuire.

H. King Wade, Hot Springs National Park, has been appointed a Trustee of the State Hospital for Nervous Diseases.



## PERSONALS AND NEWS ITEMS

W. J. Ketz, Batesville, has been elected president of the Independence County Sportsmen's Association.

Ralph G. Kramer, Fort Smith, and C. C. Long, Ozark, were recently called to active duty for one week with the Naval Medical Corps in Washington.

Columbia County Medical Society was addressed January 11th by H. Ray Fulmer, Little Rock, on dermatology. Officers elected are: President, John L. Ruff; Vice-president, H. H. Kitchens, Jr., and Secretary-treasurer, Chas. L. Weber.

The Department of Pediatrics, University of Arkansas, and the Arkansas State Board of Health will sponsor a postgraduate course in pediatrics at the University of Arkansas School of Medicine, Little Rock, March 11th. Preliminary announcement has been mailed to each member of the Society.

The Arkansas Academy of General Practice will meet in the Colonial Room at the Marion Hotel in Little Rock Wednesday afternoon, April 13th. The following postgraduate program will be given:

2:00 p. m. Registration Colonial Room, Marion Hotel.

2:30-3:00 p. m. "Developments in Pediatrics," Drs. Barney Briggs and Sam Phillips.

3:00-3:45 p. m. "Developments in General Medicine," Drs. S. C. Fulmer and J. N. Comp-ton.

3:45-4:30 p. m. "Develpments in General Surgery," Drs. Henry Hollenberg and Gilbert Dean.

4:30-5:00 p. m. "Developments in Obstetrics and Gynecology," Drs. Charles Henry and Clyde Rogers.

5:00 p. m. Business Session.

7:00 p. m. Annual Banquet, Coach Room, Marion Hotel; music by Nygaard Brothers; address, Mr. Mac F. Cahal, Kansas City, Mo.

The banquet will be attended by the doctors and theri wives. The Council of the Arkansas Medical Society will attend the banquet.

This meeting will be open to all members of the Arkansas Medical Society as well as members of the Arkansas Academy of General Practice. Qualified general practitioners are urged to apply for membership to Dr. L. H. McDaniel, Secretary, Tyronza, Arkansas.

The following have been appointed part-time clinicians with the Arkansas State Board of Health: W. T. Champion, O. R. Holloway, C. S. Pool, W. E. Jones and Owen Beard.

R. M. Eubanks, Little Rock, has been appointed a trustee of the State Tuberculosis Sanatorium.

E. A. Mendelsohn, Fort Smith, and D. A. Rhinehart, Little Rock, attended the recent meeting of the Texas State Radiological Society at Fort Worth.

J. Harry Hayes, Little Rock, addressed the Sheridan Lions Club February 7th on the proposed medical center.

Jos. F. Shuffield, Little Rock, and J. H. Burge, Lake Village, attended the recent session of the American College of Surgeons in Kansas City.

Roy E. Schirmer, Fort Smith, has been elected to membership in the American Academy of Allergy.

Alan G. Cazort, Little Rock, presented a paper, "Vasodilators and Vasoconstrictors in Asthma," at the annual session of the American Academy of Allergy at Atlantic City during December.

President Lutterloh addressed the Garland County Medical Society January 11th on "Socialized Medicine."

Friedman Sisco has been elected director of the First State Bank at Springdale.

W. A. Regnier recently addressed the Hamburg PTA on "Cancer."

Fred H. Krock, Fort Smith, has passed his examinations as a diplomate of the American Board of Surgery.

Fred Hames, Pine Bluff, has been elected a member of the Radiological Society of North America.

D. W. Goldstein, A. S. Koenig, J. K. Thompson, F. E. Shearer and W. L. Shippey presented a program, "From the Cradle to the Grave" at the Fort Smith Rotary Club January 26th.



## WOMAN'S AUXILIARY NEWS

Mrs. A. S. Koenig was hostess February 15th for the February luncheon meeting of the Auxiliary to Sebastian County Medical Society.

In the absence of the president, Mrs. T. P. Foltz, Mrs. L. A. Whittaker, Jr., secretary, presided at the business session.

Other present were Mrs. Robert Thompson, a guest, and Mrs. H. B. Thompson, Mrs. E. C. Moulton, Mrs. F. H. Krock, Mrs. W. L. Shippey, Mrs. Marlin Hoge, Mrs. V. N. Kennedy, Mrs. J. S. Southard, Mrs. Paul Moberly, Mrs. Ralph Crigler, Mrs. B. L. Ware, Mrs. J. B. Stewart and Mrs. W. F. Rose.

Mrs. W. F. Rose, Publicity Chairman,  
Sebastian County Medical Society  
Auxiliary.

Mr. Otis H. Nixon, attorney, was the guest speaker before 74 members of the Auxiliary to the Pulaski County Medical Society at its luncheon meeting today, January 19, 1949, in the Junior League House. His topic was "The Overall Picture of Boards Governing and Controlling the Healing Arts in Arkansas." Dr. George Steinkamp, advisory member from the County Medical Society, was presented to the Auxiliary by Mrs. Carroll F. Shukers, President.

Mrs. Louis Hundley, President-Elect, and Mrs. Howard Stern, Legislative Chairman of the Auxiliary to the Arkansas Medical Society, of Pine Bluff were out-of-town guests.

Recent Florida vacationists were P. W. Luterloh, Jonesboro, and I. N. McCollum, Conway.

Hoyt R. Allen, Little Rock, and Joe Verser, Harrisburg, were installed as President and as Vice-President from Arkansas, respectively, at the recent session of the MidSouth Postgraduate Medical Assembly in Memphis.

Recently addressing civic groups on compulsory health insurance at Fort Smith were Chas. T. Chamberlain, J. Kenneth Thompson and T. P. Foltz.

D. W. Goldstein, T. P. Foltz and W. R. Brooksher, Fort Smith, conducted a diagnostic cancer clinic at Berryville February 11th.

R. L. Johnson has moved from Bassett to Blytheville.

Spring flowers in shades of yellow and orchid were used throughout the dining room. Hostesses were: Mrs. Verdo Webb, Mrs. William A. Clark, Mrs. Alvin Longstreth, Mrs. W. G. Cooper, Jr., Mrs. James H. Growdon, and Mrs. George W. Jackson.

Mrs. Mason G. Lawson of Little Rock, president of the Auxiliary to the Arkansas Medical Society, speaking at a luncheon meeting of the Garland County Auxiliary recently at Belvedere Country Club, urged members to inform themselves and lend every effort in the fight against socialized medicine.

She spoke also of the definite and vital need for a medical center in Arkansas and asked members to do something toward furthering that movement. In closing she appealed to the Auxiliary to "stick together and fight false theory with facts."

Mrs. Charles R. Henry of Little Rock, first vice-president of the state organization, discussed the legislation league and certain legislative measures.

Mrs. William A. Goodrum, president of the local Auxiliary, presided and introduced the guest speakers.

The invocation was by Mrs. E. L. Thompson and two beautiful vocal selections, Brahms' "Lullaby" and "L'amour Toujours" were sung by Miss Dora Jane Ledgerwood, accompanied by Mrs. Herman C. Wehlan.

Covers were laid for 53 members and guests at long tables in the spacious dining room where floral pieces carried out an all-white motif.

The Southeast Arkansas Medical Auxiliary met Monday, January 17, 1949, at McGehee at the Graystone Hotel for dinner with the doctors, after which the ladies met at the home of Mrs. H. T. Smith. Officers for 1949 were elected as follows: Mrs. Brian Barlow, President; Mrs. J. H. Burge, Vice-president; Mrs. Pelham McGehee, Jr., Secretary-treasurer and Mrs. Van C. Binns, Publicity Chairman. It was decided to send \$3 to the Erle Chambers Memorial Library Fund. Mrs. L. K. Hundley, President-elect of the Arkansas Medical Society, was a guest and spoke to the group on socialized medicine. It was voted to send telegrams to state senators and representatives concerning the establishment of



a state medical center. Mrs. S. C. Fulmer of Little Rock was also a guest.

A social hour of Bingo was enjoyed.

Mrs. Van C. Binns,  
Publicity Chairman.

Mrs. Mason G. Lawson, State President of the Women's Auxiliary to the Arkansas Medical Society, was guest of honor and speaker at a luncheon given by the Columbia County Medical Auxiliary at the Magnolia Inn, Magnolia, Arkansas, on Thursday, February 3, at 1:00 p. m. Mrs. John H. Wilson and Mrs. Paul Sizemore were hostesses.

Valentine place cards marked places for the following members and out-of-town guests:

Mrs. Joe Rushton, President of the Columbia County Auxiliary; Mrs. E. G. Burt, Mrs. G. F. McLeod, Mrs. John Ruff, Mrs. C. L. Weber, and the hostesses, all of Magnolia; Mrs. H. M. Kitchens, Mrs. Howard Kitchens and Mrs. T. H. Jones of Waldo; Mrs. John Pinson, President of the Union County Medical Auxiliary; Mrs. Garland Murphy, Jr., Mrs. L. G. Fincher and Mrs. Berry Moore, all of El Dorado, and Mrs. Henry Hearnberger of Stephens.

A valentine arrangement of red carnations made a lovely centerpiece and white candles on red heart holders added to the table decorations. Mrs. Lawson was presented a corsage of red carnations by the hostesses.

At a luncheon given by the Sevier County Medical Auxiliary at Hill's in DeQueen recently, the Howard-Pike Medical Auxiliary was organized with Mrs. F. F. Ferguson President, and Mrs. J. S. Hopkins, Secretary-treasurer.

Those from the Howard-Pike area who attended the meeting were: Mrs. A. W. Hale, Mrs. D. A. Hutchinson, Mrs. E. V. Dildy, Mrs. Edwin Dildy, Mrs. F. F. Ferguson, Mrs. J. G. Waldrop, Mrs. J. S. Hopkins of Nashville, and Mrs. Dewey Duncan of Murfreesboro.

Mrs. Mason Lawson of Little Rock, President of the State Medical Auxiliary, was present to assist in the organization of the local Auxiliary, and was the principal speaker on the program.

The wives of the doctors and dentists of Howard and Pike counties will be asked to join.

The next meeting of the Auxiliary will be held at the home of Mrs. F. F. Ferguson Monday night February 14th.

## REPORTS OF COMMITTEES

(To be presented to the 1949 session of the House of Delegates, Little Rock, April 14th, 1949; published in the Journal in accordance with action of the House of Delegates at its 1948 annual session. These reports will not be read at the annual session but committee chairmen may amend or add to the printed reports.)

### COMMITTEE ON HEALTH AND PUBLIC INSTRUCTION

T. T. ROSS, Chairman

The need for certain basic public health legislation has handicapped efforts to establish and maintain adequate local health services throughout the state. Though the State Board of Health has carried on an intensive recruitment program for public health personnel there is still a shortage. As of December 31, 1948, there were eleven full-time health officers; one assistant health officer; three full-time nutritionists; one dietitian consultant; one full-time health educator; one hundred and eleven public health nurses; nine clinic nurses; forty-nine sanitation personnel; and seven venereal disease case investigators.

For carrying on the local health services the state now has seventeen district health departments with two to five counties each; eight full-time single county health departments; two full-time city health departments; and ten counties organized for nursing services only, twenty-two counties are without public health nursing services.

If the local health units are to provide the basic health services for the people certain basic permissive legislation is necessary. Two bills pertaining to local health service will be introduced in the 1949 General Assembly. One of the bills would permit two or more adjacent counties to pool their facilities and resources to form a district or multi-county health department. The second is a proposed amendment to the constitution to permit counties to vote a millage tax for public health service. If these two bills are passed by the 1949 General Assembly the task of developing adequate local public health services should be much easier.

The six primary health services commonly accepted as essential are (a) vital statistics (b) communicable disease control (c) environment sanitation (d) laboratory services (e) maternal and child health (f) public health education. A summary of the accomplishments in these fields during the year follows:

#### (a) Vital Statistics:

During the year 1948 birth and death registrations continued on the upward swing. In the first eleven months a total of 43,196 births and 13,287 deaths were registered.

Through newly established procedures in notification of birth registrations the demand for copies of birth certificates has increased appreciably. Through this increased demand the department issued twenty-five per cent more photostatic copies of birth certificates during 1948 than were issued in 1947.

#### (b) Communicable Disease Control:

Communicable Disease Control activities are carried on by the following divisions in the State Health Department: The Division of Communicable Disease Control, the Division of Tuberculosis Control, the Division of Venereal Disease Control, the Bureau of Sanitary Engi-



neering, and the Division of Malaria and Typhus Control.

Diseases Reported 1948

(Median 1943-47 in parentheses)

Above Median

Chickenpox (1232)	1891
Measles (3281)	4327
Poliomyelitis (77)	146
Tularemia (102)	162
Whooping cough (935)	1267
Diphtheria (328)	156
Influenza (10043)	7795
Malaria (1349)	636
Meningococcus meningitis (127)	34
Mumps (937)	898
Scarlet fever (396)	262
Typhoid fever (141)	111
Undulant fever (47)	44

Of the diseases reported in 1948 below the 5-year median, diphtheria (156) and malaria (636) are at an all-time low from records available since 1920. Typhoid fever remains at a low prevalence although a few more cases were reported in 1948 than in 1947. A more intense epidemiological investigation of reported cases of typhoid fever resulted in the identification of eleven chronic carriers of this disease during the year. Four additional carriers notified from other states were put under carrier-quarantine. Just as the year ended an increased prevalence of influenza was reported, but no epidemic of this disease was recorded in 1948. In many counties outbreaks of a mild, short-duration, intestinal infection of undetermined origin, usually diagnosed intestinal influenza or virus diarrhea, occurred during the latter half of the year.

Tuberculosis:

The control of tuberculosis at the present time can be accomplished only by breaking the chain of spread of the disease. In this respect the Division of Tuberculosis Control of the State Health Department is carrying on a joint mass X-ray survey program in cooperation with the various tuberculosis associations and interested community groups. Individual communities are selected and an intensive effort is made to X-ray every adult 14 years of age and over in the group. The majority of such surveys have attained about 75 percent of this goal. From July, 1947, to July, 1948, 185,204 70 mm films were made. Equipment used consisted of four mobile X-ray units and three stationary units located at the University Hospital and City Health Department in Little Rock, and the Fort Smith-Sebastian County Health Department. Clinics were held in 457 different communities from July, 1947, to July, 1948, and the X-ray units were in operation 2,845 hours, an average of 65 persons being X-rayed for every hour's operation. A provisional diagnosis of pulmonary tuberculosis was made on 800 individuals, all of whom, together with X-ray findings, were referred to their family physicians. In addition, a total of 3,141 other patients were referred to their private practitioners because of suspected tuberculosis or other non-tuberculous findings; making a grand total of 3,941 patients who have been referred to the practicing physicians for further study and a final diagnosis as a direct product of the work of this Division.

In the Central Tuberculosis Case Register a record is kept of every diagnosed case of tuberculosis. On December 31, 1948, there were 7,621 such cases known to the State Health Department which still require medi-

cal supervision, and during this time 2,362 new cases were reported. The reporting of new cases of tuberculosis by the private physicians has increased but even so, only about 1/5 of such new cases are initially reported by the private practitioner. Great improvement in this regard is needed.

Consultation in the interpretation of 14x17 chest plates sent to this office by the local physicians was rendered on 1,863 cases from July, 1947, to July, 1948. There are now on file almost one-half million photofluographic chest films which are available for comparison with any future chest X-ray which may be made on these patients. This is believed to be a most important and invaluable service to the practicing physicians.

Venereal Disease:

On the basis of reporting during the first eleven months, it is estimated that there will be 24,949 cases of venereal disease reported in the State of Arkansas during 1948. Of this total number 18,327 are reported cases of syphilis; gonorrhea numbers 6,113 cases; and the remaining 509 cases are the so-called minor venereal diseases which include chancroid, lymphogranuloma, and granuloma inuinale.

This represents an increase of 12 per cent in the number of reported cases over the preceding year, and it seems to indicate an increase in the spread of these diseases. It should be pointed out, however, that the intensified casefinding program conducted by the Arkansas State Board of Health in addition to improved reporting through the fine cooperation of private physicians has brought about this situation. Reporting of venereal disease by physicians has increased by almost 100 per cent over last year. The Arkansas Delta Plantation Survey which has done mass testing in twenty-two eastern and southern counties this year took a total of 85,651 blood tests. Of these approximately 11 per cent were postive and a total of 7,912 cases of syphilis were found through this method. Both the health department and private physicians are digging deep into the reservoir of latest syphilis cases which has been built up over a number of years.

A bill for an act to require pre-marriage physical examinations will be introduced in the 1949 General Assembly of Arkansas. This bill will require the medical certificate of a licensed physician to the effect that the applicant for marriage is not infected with a communicable disease. The medical certificate will be accompanied by the statement from an approved laboratory that a serologic test for syphilis was performed by the laboratory. Each applicant for marriage license will be required to present the medical certificate with the statement of the laboratory to the county clerk upon making application for a marriage license.

Malaria Control:

The Malaria Control Program during 1948 operated in forty-two counties in the state. The counties in which this program operated were those which had a death rate of five per hundred thousand or more for the period 1938 through 1942. A total of 114,686 houses were sprayed with DDT during the spring and summer. Larvicidal operations for the control of mosquito breeding was carried on with the cooperation of 18 towns. Eight hundred thousand persons were protected by this work.

Six hundred and thirty-four cases of malaria were reported this year compared with 1,324 in 1947. There



were 14 deaths in 1948 compared to 28 in 1947. Both cases and deaths were the lowest ever reported in the history of the state.

The program during the 1949 season will be operated in 45 counties. This is in accordance with a more recent epidemiological formula which gives approval to counties for operation where five deaths per hundred thousand occurred during the period 1938 through 1943 plus one death per hundred thousand occurring for the period 1943 through 1947.

#### Typhus Control:

Activities in this sphere were aimed at freeing the areas involved of rats through coordinated programs of garbage control, general environmental sanitation, rat-proofing, and rat poisoning.

Supported by continuous and community-wide cooperation, which is essential to rat control operations, 29 Arkansas cities inaugurated effective garbage control programs. One sanitary land fill project was started. Two cities operated rat proofing programs. 389 buildings were rat proofed and rat eradication operations were conducted in 1,028 establishments. In eight other cities 72,418 red squill rat poison torpedoes were distributed.

Through the above efforts typhus fever has been reduced to six cases for 1948 compared to 19 cases in 1947 and 46 cases in 1946.

#### (c) Environment Sanitation:

##### Sanitary Engineering:

The scope of the work of the Bureau of Sanitary Engineering includes the sanitary supervision of public water supplies and sewage works, milk supplies and dairy products, malaria control, typhus control, food and drug control, approval of plans for water and sewage systems and treatment plants, swimming pools and pasteurization plants.

Routine inspections have been made of most of the public water supplies during 1948 to determine compliance with good sanitation practice. The estimated expenditure for water works improvements during the past year was 2,260,000. This is approximately three times the amount spent for this purpose the preceding year.

Because of excessive construction costs improvements to both water and sewerage systems have been limited almost entirely to emergency requirements. It is estimated that about \$1,000,000 have been spent on sewerage improvements, which is almost double the amount spent for this purpose during 1947.

The mobile field laboratory has been used at 20 water purification plants and eleven sewage treatment plants, staying approximately a week at each plant to determine plant efficiencies and remedying faulty operations.

##### Milk Control:

The Division of Milk Control has been concerned mainly with the building of new pasteurization plants and dairy barns. At the present time there are more than one hundred pasteurization plants located throughout the state leaving a very small area which does not have pasteurized milk available to the people. The percentage of pasteurized milk consumed has increased almost one hundred per cent. In several of our towns and cities all of the milk consumed is pasteurized, and in the others only a very small amount of the milk is consumed raw. The dairy industry has been developed in areas of the state where previously there was none. As a result of the improvement of the quality of the milk

the laboratory from expanding into important procedures, supplies, there has been a very definite increase in per capita consumption. On the basis of statistics, there has been a reduction in the incidence of milk borne diseases. This is attributed mainly to the improvement in milk sanitation.

#### Food and Drug Division:

The Food and Drug Division spent the past year in initiating a number of new programs in addition to continuing the programs that were started in 1946 and 1947. Prominent among the new projects were the inspection of the eating and drinking facilities of all the licensed hospitals in Arkansas, the holding of meetings in several counties for workers and officials of school lunch projects in order to assist in an understanding of the health requirements, and extensive work on the enforcement of the Barbiturate Act of 1937. Among the earlier programs to which a great deal of time and work was devoted may be found the improvement of sanitary conditions in canning plants, grocery stores, markets, slaughter houses, packing plants, bakeries, candy kitchens, bottling plants and restaurants. An intensive program in the improvement of sanitation in school lunch projects was carried out.

The Food and Drug Laboratory was active in the analysis of food and drug samples and the chemist assisted in the successful prosecution of a number of cases involving the selling of adulterated hamburger. During the course of inspections carried out by the Food and Drug Division, great quantities of food products that were found to be unfit for human consumption were voluntarily destroyed by the manufacturers or possessors.

##### Dairy Products:

During the past year the responsibility of the Dairy Products Division has increased materially by expansion of the various branches of the dairy industry which it supervises.

The Division has carried on a rigid sanitary inspection of creameries, cheese factories, condenseries, condenser depots, ice cream plants, counter freezers and cream stations. Routine examination of the raw materials and of the finished product is indicative of the industries' progress in improvement of the quality of the materials bought from the producers and the manufactured products sold to the consumers.

#### (d) Laboratory Services:

During the year 1948, the Hygienic Laboratory received and examined 241,705 specimens. This is an increase of 81,590 over the calendar year 1947. A large portion of this increase consists of specimens from the Delta Plantation Venereal Disease Survey. However, significant increases are noted in all branches of laboratory work.

The Serology division of the laboratory participated in the Annual Syphilis Serology Evaluation conducted by the United States Public Health Service in order to determine the accuracy of the various serological procedures performed. The Kline test as performed in the Hygienic Laboratory was 74.9% sensitive and 100% specific as compared to 66.4% sensitivity and 100% specific when conducted by Doctor Kline himself. In the case of the Kolmer Complement Fixation test, the sensitivity was of 71.1% and specificity was 100% as compared to 74.4% sensitivity and 100% specificity of the control laboratory's test.

The lack of sufficient qualified personnel prevents



such as quantitative serologic determinations, virus differentiations, and better Rickettsial procedures.

(e) Maternal and Child Health

As a result of increased availability of trained personnel, the Maternal and Child Health Division has been able to extend services to mothers and children to a degree not possible since the beginning of the war years. A chief nutritionist, two nutrition consultants, one staff nutritionist, and a dietitian consultant were obtained and placed on duty during the year. Nutrition consultation services is now offered to the entire state. The position of dietitian consultant is new in Arkansas—the chief duties are to advise with hospitals and other institutions concerning dietary phases of care, personnel and facilities.

A health educator with special training in hearing and vision testing was added to the staff to instruct public health nurses and selected school personnel in the use of audiometers and Massachusetts vision test equipment assigned to county health units for use chiefly in the school health program. This is done in close cooperation with a special committee on the State Medical Society.

A workshop in school health was conducted by this division and the State Department of Education. In connection with this, a permanent joint Health Education Workshop Committee has been organized and ten schools have been designated as pilot school projects in which to work out the best practical methods in school health services for Arkansas.

Through the efforts of this division as co-sponsor, a post-graduate refresher course in pediatrics was furnished 150 Arkansas physicians. Scholarships were granted 14 trainees, all employees of the Health Department. Prenatal or well-child conferences were held in 21 counties and the cities of Little Rock and North Little Rock; six of these were established in 1948.

The work of midwives was continued. In 1947 they attended 15.7% of the live births in the state.

Two publications on prenatal and infant care and two sets of posters were prepared and made available to physicians and county health units.

(f) Public Health Education:

The Division of Public Health Education established in July, 1946, has made considerable progress in two years of existence.

We now have a library containing 2,460 reference volumes; a film containing 210 titles and 76 film strips.

During the past year the film library circulated a total of 1,563 films and 246 film strips. These were shown to a total audience of 108,681. More than half a million pieces of public health literature were distributed. The division participated in five summer workshops; gave consultation service to other divisions of the Arkansas State Board of Health and state voluntary agencies; published a monthly bulletin; developed a number of public health posters and pamphlets; and edited and published the Annual Report.

The Arkansas State Board of Health has now in operation two newly established divisions which have shown marked progress during the year 1948. These divisions are the Division of Hospitals and the Division of Industrial Hygiene.

The Division of Hospitals was established through the authorization of Act 85 of 1947. To date this division has inspected approximately 50 per cent of the hospitals in the state. Licenses have been granted to 165 hospital units. The benefits of Public Law 725 has pro-

vided financial aid with reference to the construction of hospitals and public health facilities in the total amount of \$3,934,627. Applications have been received and processed for eleven general hospitals, which upon completion of construction, will provide 536 additional hospital beds in the State of Arkansas, also one tubercular unit of 100 bed capacity for the State Mental Hospital, one 460 bed ward building for the State Mental Hospital and four service units for the State Mental Hospital.

The total amount of hospital construction covered by the accepted applications is \$7,682,576.52 of which approximately one-third will be provided by the federal government.

During the year 1948 the Division of Industrial Hygiene completed 393 visits to 172 industrial establishments employing approximately 40,000 employees. These visits were for the primary purpose of assisting in the improvement of the health and working conditions of the employees. Engineering, chemical and educational services were offered as follows:

1. Finding and evaluating occupational health hazards.
2. Recommendations of controlling the working environment and improving the health program and plant sanitation.
3. Educational talks, pamphlets and posters.

The response of plant management throughout the state with reference to cooperation and the establishment of recommendations made by this division strongly indicates that modern industry and plant management feels that an aggressive industrial health program within industry is a very worthwhile program. In the future, representatives of this division will make annual visits to industrial establishments throughout the state for the purpose of completing educational studies and making further recommendations to industry with the purpose of further improving health programs for industrial employees. It is sincerely felt by the Arkansas State Board of Health that preplacement and periodic physical examinations of all industrial workers is a basic need in further promoting industrial public health programs.

Conclusion:

In order for the 75 counties of the state to establish and maintain adequate local health services, certain basic permissive legislation is necessary. Two or more counties should be permitted to pool facilities and financial resources to form district or multi-county health departments. The qualified electors of the state should be permitted to vote for a two mill tax on personal property and real estate for public health services within the county. If such permissive legislation is approved, the task of further developing adequate local public health services would be much easier and adequate coverage of the state would be much more likely. Arkansas remains only one of ten states not having in effect a premarital physical examination law to determine the existence of a communicable disease in either marital partner. Thirty-eight states now have such a law in effect. The passage of such legislation would aid materially to the prevention of syphilis in early marriage. We also have every reason to believe that this protection measure in early marriage would be a great aid in further decreasing the incidence of congenital syphilis and stillbirths due to syphilis.

It is sincerely felt by this department that with the present salary pay scales for professional and non-professional workers that the health program throughout the state can not compete in the procurement of badly needed personnel with private industry, private institutions



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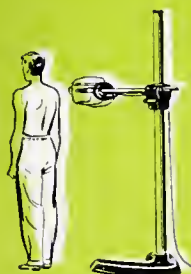
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and federal agencies. It is sincerely felt that the State of Arkansas, as well as local units of government should allow adequate appropriations which will permit adequate salaries for health workers, thereby eliminating the present shortage of public health workers throughout the state.

## COMMITTEE ON MEDICAL EDUCATION AND HOSPITALS

EUCLID M. SMITH, Chairman

This report of the Committee on Medical Education and Hospitals of the Arkansas Medical Society is an interim report believed to be necessary to acquaint you with the present situation at the School of Medicine.

The graduation exercises of the School of Medicine were held in Fayetteville on June 4 and 5 of this year. There were fifty-five (55) graduates who received their medical doctor's degree on this occasion. The ceremonies were colorful and the medical group added considerable to the dignity of the occasion. You are, of course, aware that the medical doctor's degree is the highest degree offered by the University of Arkansas. Again, the Councilors and various officials of the Arkansas Medical Society were incited to participate in these ceremonies and to join in the procession with officials of the University. They were seated on the stage in a place of honor. The "Oath of Hippocrates" was administered by Dr. P. W. Lutterloh, President of the State Medical Society.

At a meeting of the Board of Trustees on June fourth, the operational budget for the year 1948-49 was presented for their consideration. This budget envisioned the expenditure of \$1,113,183.00, which required an appropriation of \$112,983.00 from contingent cash reserves of the School of Medicine. You will remember that the total state appropriation for the operation of the School of Medicine was \$560,000.00 for each year of the biennium and the State Welfare Association donated \$200,000.00 each year of the biennium to assist the University Hospital in its operation. The remainder of the monies came from various income sources.

At a later meeting of the Board of Trustees the proposition of deficit operation entered into the discussion and it was decided at this time to increase student tuition fees to \$500.00 a year for each resident student and \$750.00 a year for each non-resident student. This announcement came just prior to the opening of the fall term of the School of Medicine and was not well received by the student group, who by resolution to the President of the Board of Trustees and the President of the University of Arkansas requested a hearing in the matter of increased tuition fees. This hearing was granted and Dr. Lewis Webster Jones, President of the University; Mr. Herbert L. Thomas, President of the Board of Trustees; and Dr. Euclid M. Smith, Chairman of the Medical School Committee of the Board of Trustees, met with representatives of the Student Council, representatives of various affiliated veterans' organizations, representatives of the Legislative Council of the State Legislature on October fifth in the amphitheatre of the medical school building. The discussions were general and the following day Dr. Jones queried the various Board members at the suggestion of the President of the Board of Trustees about this matter. Following these telephonic conferences it was decided to reduce the tuition fees to \$375.00 a year for each resident student of the State of Arkansas.

No change was made in the non-resident tuition fees.

This will increase the income from this source to where it would now appear that the deficit operation would be slightly under \$100,000.00 for this year.

There is attached hereto a copy of the bulletin of the University of Arkansas School of Medicine, dated September, 1948, in which you will find the rules and regulations for the operation of the School of Medicine as well as a completely revised curriculum. (Tab. A.) This curriculum is the result of a practically continuous operation of the Curriculum Committee of the School of Medicine and is patterned after a composite of curricula of sixteen (16) medical schools presently operating in the United States.

After the untimely death of Mr. Ray Burks, of the firm of Burks and Anderson, who was the architect employed by the Board of Trustees to plan the Memorial Hospital, the Board of Trustees awarded the contract to Mr. Bruce Anderson, who was a co-member of the firm. Mr. Anderson during the past several months has discussed with each individual head of a department of the School of Medicine the needs and requirements of floor space for a new medical school building and the space requirements in the Memorial Hospital. In addition Mr. Anderson and the administrators of the School of Medicine have examined the total overall requirements needed to build a medical center. It is believed at this time that the cube space requirement is fairly firm and Mr. Anderson is projecting to the Board of Trustees an estimated cost of construction, both at the present site of the medical school and at the medical center. Attached hereto is intimate detailed information about this matter. (Tab. B.)

You will recall the publicity that was initiated by an editorial in the Arkansas Gazette concerning the lack of facilities to treat cancer cases at the medical school. A total of \$2,855.00 was received by donations from citizens of this state. This amount of course was inadequate to purchase the necessary equipment and a grant was requested of the Cancer Control Division of the U. S. P. H. S. and from this source the school received \$21,000.00 for the purchase of this equipment. This equipment has been purchased, installed and in operation are three units which are used for treatment purposes: a 400 KV unit, a 250 KV unit, and a 100 KV superficial unit, the latter being on hand prior to the reception of this grant. The various items of equipment were advertised and bids were received and in each instance the low bidder was given the contract to furnish the equipment. In advertising a composite description was made so that all companies could bid on this equipment.

You will all recall the arrangements that the School of Medicine made with the State Medical Society in connection with the operation of a School of Technology, which was aimed to produce medical technicians that could be utilized by the physician in his office. Requirements for admission were high school graduation. The arrangements which were made allowed the Councilor of each district to appoint two students to the school with the understanding that these students would flow back, after they had completed their training, to the district from which they were appointed. This idea apparently was not well received as we had but a few applications under this plan. Therefore, it was decided to revert back to our former status in the training of medical technologists, and presently in operation is a School of Medical Technology which has been approved



by the American Society of Clinical Pathologists. Applicants who have received directional pre-technical training and have completed three years in an accredited college are eligible, upon the completion of one year of formal training, for a Bachelor's degree in Medical Technology and registration by the American Society of Clinical Pathologists. Those who have received only two years of training are eligible for registration only upon the completion of the one year of training in the School of Medicine Technology. At the present time there are 17 students in this school and applications are on hand to increase the student load to about thirty. It is proposed to stagger the registration so that there will be a constant flow of graduates from the school. Presently operating under the Department of Radiology is a school of radiological technicians. These students are required to spend a year in residence in such training. They are required to spend an additional year working with a Diplomate of the American Board of Radiology in order to be eligible for registration by the American Registry of X-ray Technicians or they may spend two years working for a non-board member and become eligible for registration.

It is conceivable that the School of Medicine develop a school of medical record librarians in the immediate future. At the present time a study is being accomplished to determine the feasibility of this program. There is no doubt in the minds of the authorities of the School of Medicine as to the need for such a school as under the present building program the State of Arkansas will within the immediate future build a number of new hospitals and skilled assistance will be needed to develop the records of these hospitals in accordance with the standards set up by the various registering organizations.

The School of Medicine has been most happy to participate in the programs of many of the county and district societies. This relationship has been quite stimulating and we sincerely hope that the various faculty members of the School of Medicine may continue to participate in these programs and that they be privileged to participate in the programs of the Arkansas Medical Society. In this connection the Committee on Programs has in the past been most generous with the allocation of time for the School of Medicine. In addition two post-graduate assemblies have been held at the School of Medicine, and in each instance this project was sponsored jointly by the State Board of Health, the School of Medicine and the Committee on Post-graduate Education of the Arkansas Medical Society.

To enable the Department of Medicine to capture additional beds for teaching purposes in the University Hospital, a portion of the physical plant has been modified so that the Department of Medicine now has eight additional beds.

The Veterans Administration offered to the School of Medicine the opportunity of developing clerkships at their Facility in North Little Rock. This clerkship has been developed and, it is believed, will offer a very fine training and adjunct to the present facilities.

The U. S. P. H. S. through the State Board of Health has developed a very fine program devoted principally to venereal disease control at their hospital in Hot Springs, and senior students of the School of Medicine rotate through this hospital for a period of two weeks. In addition to the Army and Navy General Hospital in Hot Springs has kindly offered two mornings each week

where the student group assigned to the venereal disease program makes ward rounds on the medical service at that hospital. At the Army and Navy Hospital the cases studied are those in the rheumatological and cardiological sections.

Senior students also rotate through the Arkansas Tuberculosis Sanatorium at Booneville, where they remain two weeks under Dr. J. D. Riley. This particular function has also received fine commendation by the student group.

Beginning in July an integrated intern and resident training program was initiated. This involves the rotation of interns and residents in some of the specialties through the services at St. Vincent's Infirmary, the Baptist State Hospital and the University Hospital. This program of training has been favorably received by the intern group and presently on hand are applications from 33 members of the present senior class and 3 from graduates of other schools.

Active resident programs have been developed for training in the following specialties: surgery, medicine, pediatrics, pathology, obstetrics and gynecology, and radiology. All these programs have been approved tentatively by the Council on Medical Education and Hospitals of the American Medical Association.

A close working affiliation with the State Hospital for Nervous Diseases wherein the Departments of Medicine, Surgery, Obstetrics and Gynecology, and Pathology are active in processing and treating type cases at the State Hospital.

Following the departure of Dr. E. Lloyd Wilbur from the Baptist State Hospital, a tentative working arrangement was made with the School of Medicine and the Board of Trustees of the Baptist State Hospital to cover the Department of Pathology at that hospital. The Department of Pathology of the School of Medicine is presently functioning in a temporary manner for the Baptist State Hospital. The total fees received from this operation is \$7,000.00 each year.

The State Board of Health is authorized by law to develop a State mental hygiene program and received a sizable grant from the U. S. P. H. S. to accomplish this purpose. Following several conversations between medical school authorities and authorities of the State Board of Health, a decision was reached to utilize the Department of Neuropsychiatry in the School of Medicine and to develop this program locally as an initial venture. A sum of \$7,500.00 was received from this grant source for the purchase and erection of two temporary buildings. These were purchased from the War Assets Administration. These buildings have been set up just behind the medical school building and house the Department of Neuropsychiatry and the personnel of the Mental Hygiene Clinic, which consists of a clinical psychologist, a psychometrist and clerical help. By means of our affiliation with the Veterans Administration the various psychiatrists at the Veterans Administration the various psychiatrists at the Veterans Facility in North Little Rock donate their time to this project. The initial grant of \$7,500.00 was supplemented by an additional \$3,500.00, which came from school sources. These monies as aforementioned were used in the purchase, installing and equipping two buildings.

The School of Medicine also is closely affiliated with the State Board of Health through the provision of maternal and infant care, the Department of Pediatrics being completely subsidized from this source. To enable the



School of Medicine to X-ray the chest of all patients at the clinic and hospital, the Tuberculosis Division of the State Board of Health donated one complete photo-roentgen unit, which has been installed in the clinic section of the School of Medicine.

Through the good offices of Dr. John T. Gray, Medical Director of the State Welfare Association, and from federal sources several units of equipment have been purchased for the School of Medicine, among which is a 500 MA radiographic and fluorescent X-ray unit and a combination electro-cardiogram-stethogram, which will be most useful in diagnosing and in following the progress of rheumatic fever sufferers in the clinic.

The school also houses the clinic operated by the Crippled Children's Division of State Welfare Department.

There were two hundred and thirty (230) applications from bona fide residents of the State of Arkansas for admission to the present freshman class. Ninety-one were selected on a competitive basis. In developing a competitive system of selection, the Committee on Admissions of the School of Medicine give weights and values to the various attributes of applicants: scholastic standing, comparative scoring on the Professional Aptitude Test, military service and recommendation of the Pre-medical Advisory Committee. These are carefully evaluated and quality points developed, and the individuals with the greatest number of quality points are chosen. One female negro applicant was accepted for this freshman class out of twelve negro applicants.

At the time of matriculation there were three hundred and five (305) medical students in the School of Medicine, divided in the following manner: Senior class 54, junior class 71, sophomore class 89, and freshman class 91. Also presently enrolled are six graduate students, seventeen students in the School of Medical Technology, and nine students in the course of X-ray Technique.

The patient load level at the University Hospital has been greatly increased over the first quarter of this fiscal year as compared with the first quarter of the last fiscal year—thirteen (13) per cent, or in absolute numbers, an average daily census of 176 for this period in 1948 and 155 in 1947. The clinic load has also been increased over last year. For the first six months of 1948 there were 2,868 new admissions and for the same period in 1947 there were 2,507 new admissions. Clinic visits for the first six months of 1948 totaled 29,366 and for the same period in 1947 clinic visits totaled 19,429. Attached hereto is a compilation showing patients discharged from the University Hospital (Tab C). The accountants inform me that during the fiscal year ending June 30, 1948, the cost was \$.61 per patient per day and that the cost of each clinic visit was \$2.61.

For several years the University of Arkansas Blood Bank, which was conceived during the last war, has gone to many centers in our State and received whole blood from donors. This whole blood has been processed into dried plasma, which is stored and available when needed. This dried plasma has been shipped to many hospitals in the state, and on many occasions criticism has been offered to the aforementioned procedure, chiefly from pharmaceutical houses which are selling dried plasma commercially. To enable the School of Medicine to continually have on hand a sufficient amount of dried plasma for any catastrophe or emergency that might arise in

our state. The Councilors were propositioned on the development of a program wherein county medical societies would arrange with the Blood Bank officials to develop a sufficient number of donors to make it profitable for the portable equipment to be sent to a location for the purpose of receiving such blood, with the view of processing this blood into dried plasma and shipped directly back to a designated official of the county medical society who would be responsible for a proper utilization of this plasma. County society officials were queried by letter in this matter and to date only three county societies have responded. A trip was made to Washington County last week but was not profitable because only about one-half dozen donors were available. The other two counties heard from were Chicot and Pulaski, and arrangements have been made with these two counties for blood letting dates. It is the intent of the School of Medicine to again invite the officials of county societies to participate in this program.

During the past several years the State Board of Health Hygienic Laboratory has received surgical tissues from various physicians and hospitals throughout the state. The physicians of the Board of the State Board of Health, believing this function not to be a responsibility of the Hygienic Laboratory, decided to discontinue this function and, believing that in most instances the surgical tissues received were from medical indigent patients, the Department of Pathology of the School of Medicine decided to undertake a continuation of this function. Each physician of the state was made aware by letter of the intent of the School of Medicine in this connection. In this program the physicians of the state accepted the responsibility of determining medical indigency and sending surgical tissues to the Department of Pathology from those who are unable to pay a pathologist for an analysis.

You are aware that the operating budget of the School of Medicine became an integral part of the budget of the University of Arkansas and was presented to the pre-budget committee and later to the Legislature during the General Assembly of 1947. This procedure will again be followed and the School of Medicine budget will be presented to a committee of the Legislative Council prior to the convening of 1949 General Assembly. The operating budget of the School of Medicine, which includes new construction, has been approved by the Board of Trustees. The extent of new construction is dependent upon the decisions reached by the Legislative Council. Briefly, the state appropriation necessary to carry on the operation of the School of Medicine and University Hospital for the biennium is slightly over \$2,000,000.00, which does not include any assistance from the State Welfare Department. A discussion of the cost of new construction is contained in the attached study.

The aims and objectives of the School of Medicine were submitted to the President of the University of Arkansas soon after he assumed office and he approved in principle these aims and objectives. Attached hereto is a copy for your information (Tab. D). You will note that one of the objectives is the establishment of a school of nursing, the graduates of which would be eligible for a baccalaureate degree in nursing. The Board of Trustees has gone on record as approving the development of a school of nursing. The time and place being dependent upon the desire of the people of the



state to make the necessary monies available for new construction and operation of such a project.

Contained in the bulletin of the School of Medicine is a listing of all faculty members. It will be noted that a number of these faculty members reside in cities other than Greater Little Rock and utilization will be made of these faculty members who reside outside of Greater Little Rock from time to time in the teaching of the specialty in which he or she is particularly interested.

It will be well to point out the basic philosophy which has been adopted by the Board of Trustees and the authorities of the University of Arkansas in connection with the type of graduate that the School of Medicine should produce. Basically, the authorities of the School of Medicine believe that its graduates should be well trained in the various phases of medicine so that they are best fitted to become general practitioners. The medical school authorities believe that in the development of a medical center every opportunity should be given to physicians of the State of Arkansas to pursue short post-graduate courses at the School of Medicine and believe further that the School of Medicine should be carried to the physicians of the state by means of forum and seminar discussions.

Because of the marked increase in patient load in the Isaac Folsom Clinic and University Hospital, the Director of Administration decided to undertake a study to determine the financial status of all new patients that were admitted to the clinic. Before such a study could be accomplished, medical indigency had to be analyzed and described in terms of degree. Attached hereto is a booklet which describes patient classification (Tab. E). It will be observed that all patients are classified into the numerical categories based on total family monthly income and number of dependents and in other pages are described the fee schedule of patients by category. Before proceeding in this direction, the School of Medicine desires that the Councilors of the Arkansas Medical Society approve this method of classification and fee schedule. It would be well to point out that all patients classified in "D" category are considered to be patients who are not medical indigents and who can be referred to a physician of their own choosing for medical service. It would appear only fair that those who can make some contribution towards the operation of this service should make a contribution in keeping with their financial ability, and it is further believed that by so doing patients will not be humiliated by the fact that they are, strictly speaking, charity patients.

Considerable publicity has been given in connection with the relationship between the School of Medicine and Dr. Joseph T. Roberts. The facts involved are as follows: Various faculty members and department heads went to the administrative head of the School of Medicine from time to time informing him of deficiencies that involved Dr. Roberts. Conversations were had between the administrative head and Dr. Roberts, and the President of the University was made aware of these happenings as well as the Board of Trustees. The President saw fit to inform Dr. Roberts that his contract would not be renewed after December 31, 1948. This communication was marked "Confidential." In this way Dr. Roberts was given the opportunity of gracefully withdrawing from his position without any publicity whatsoever. However, he saw fit to take issue with the action taken by the President of the University and solicited the sym-

pathy of many of the local physicians, who found themselves more or less bewildered by the resultant situation. For this reason a meeting of the Liaison Committee of the Pulaski County Medical Society was held and attended by several other members of the Pulaski County Medical Society as well as the President of the University and the Vice-President for Medical Education and Hospitals, wherein the events leading up to the aforementioned letter were discussed with the group as well as the resignation of Dr. Roberts as Dean and administrative head of the Department of Medicine. These discussions were free and open, and it was felt that all those attending this meeting were completely conversant with this unfortunate situation.

Dr. William Cleaver Langston, head of the Department of Anatomy, was nominated and appointed Acting Dean during this interim period until a new Dean could be selected. The Executive Council of the School of Medicine has accepted a more dominant role in the administration of the School of Medicine.

Dr. John Nye Compton was recommended by a committee to become the head of the Department of Medicine and Dr. Phillip J. Almaden to become his Executive Assistant. These appointments have been consummated by the President of the University of Arkansas.

Following a meeting of the Liaison Committee and other members of the Pulaski County Medical Society with the officials of the School of Medicine, the attached letter was dispatched to the President of the Pulaski County Medical Society, and the present policy adopted by the School of Medicine is one of comprehensive co-operation with the local physician group in the City of Little Rock (Tab. F).

## COMMITTEE ON CANCER CONTROL

FRED HAMES, Chairman

The Committee on Cancer Control has sponsored, and different members assisted in holding, several cancer diagnostic clinics throughout the state. These clinics are proving to be of great value, and it is worth mentioning that the incidence of cancer among those who report for examination has shown a notable decrease for the past three years.

The Committee on Professional Education has distributed literature on cancer to the profession generally.

Those members of the committee who also serve on the Board of the Field Army have given freely of their time, and have responded whole-heartedly in their efforts to increase the value of the Field Army to the public.

## COMMITTEE ON THE HEART

DRIVER ROWLAND, Chairman

The main activity of the Section on Heart of the Arkansas Medical Society has been centered around the organization and development of the Arkansas State Heart Association.

This organization was conceived and the movement for its inception sponsored by Joseph T. Roberts, then Dean and head of the Medical Department of the University of Arkansas School of Medicine, and Fred Harris of Little Rock, Ark., following their attendance of the annual meeting of the American Heart Association in the fall of 1948. Accordingly, at the suggestion of these men a group of some twenty physicians from various sections



of the state met in Little Rock on October 17, 1948, and unanimously agreed to organize the Arkansas Heart Association.

At this meeting Joseph T. Roberts of Little Rock was elected President, Driver Rowland, Hot Springs, Vice-President, and John Greutter, Little Rock, Secretary-Treasurer. The officers were named as a temporary executive committee and authorized to submit to the Association the names of Association members for appointment to the following committees: Constitution and By-laws, Publicity, Executive, and Program.

The first regular meeting of the Association was held in Little Rock, December 17, 1948, at which time the Constitution and By-laws were presented and approved. Also, the following committee appointments were approved:

1. Constitution and By-laws Committee: Chairman, J. N. Compton, Little Rock; Owen W. Beard, University of Arkansas School of Medicine, Little Rock; Paul D. Day, Professor of Bio-chemistry, University of Arkansas; W. C. Langston, Acting Dean, University of Arkansas School of Medicine.

2. Publicity Committee: Chairman, Fred W. Harris, Little Rock; George W. Parsons, Texarkana, Arkansas; A. A. Blair, Fort Smith; Frank Adams, Hot Springs.

3. Executive Committee: The officers of the Association and the following physicians: S. C. Fulmer, Little Rock; John N. Compton, Little Rock; S. T. W. Cull, Little Rock; Oliver C. Melson, Little Rock; Euclid Smith, Hot Springs; George W. Parsons, Texarkana, Arkansas; H. T. Smith, McGehee; A. A. Blair, Fort Smith; Charles Chamberlain, Fort Smith; Henry Hollenberg, Little Rock; D. A. Rhinehart, Little Rock; Fred W. Harris, Little Rock; L. H. McDaniel, Tyronza; Dan Autry, Little Rock; Carl Rosenbaum, Little Rock; Halph McLochlin, Little Rock.

4. Program Committee: Daniel H. Autry; Owen W. Beard; P. P. Briggs; Isadore Meschan; Harvey Shipp.

The Arkansas Heart Association is to be patterned after and affiliated with the American Heart Association. The purpose of the Association is for the study of and dissemination of knowledge about cardiovascular diseases and related subjects.

The problem of membership in the Arkansas Heart Association has been discussed, and it was unanimously agreed that any member of the Arkansas Medical Society in good standing and who is interested in the problems peculiar to cardiovascular disease would be eligible. It was also considered that any scientist associated with any reputable institution would be deemed acceptable for membership. Lay personnel will be invited at a later date to affiliate with the organization, but this matter will be considered after acceptance of the rules stated in the Constitution and By-laws, which are in the process of formulation at this time.

It is believed that the organization of the Arkansas Heart Association is a step forward in the advancement of the study of heart disease in Arkansas. Further proceedings and scientific articles emanating from this group are expected to be published in the Journal of the Arkansas State Medical Society, and it is expected that the activities of this association will be closely correlated with the Section on Heart of the Arkansas State Medical Society.

## COMMITTEE ON MATERNAL AND CHILD WELFARE

I. F. JONES, Chairman

The Committee of Maternal and Child Welfare has not had a meeting this year. Nothing of special importance has come before the chairman that he deemed it necessary to call a meeting of the committee.

## COMMITTEE ON MEDICAL ECONOMICS

HENRY G. HOLLENBERG, Chairman

The Committee on Economics and Medical Care, composed of Mrs. Monfort, Sneed and Hollenberg, chairman, has held no formal meetings throughout the year. In an indirect way however, the members of the committee chose to feel that they have had some part in numerous activities of the Society pertaining to medical economics and medical care. Prominent among these are the matters of the Blue Cross and various problems connected with the State Medical School and the proposed medical center.

## COMMITTEE ON POST-GRADUATE MEDICAL EDUCATION

A. D. GARNER, Chairman

On January 30, 1949, the Committee on Post-graduate Medical Education met at the Albert Pike Hotel. The chairman and four members were present (D. A. Rhinehart, Jeff Banks, Ernest Stroud and J. H. McCurry). Questions concerning an expanded post-graduate study program were discussed and the various problems to be faced and overcome were considered. It was felt by the entire committee that a more comprehensive plan of study, as presently practiced in other states should be attempted, even though such plans call for a great deal more effort than has been possible during the immediate postwar years.

Study of the post-graduate medical training schedule of various neighboring states indicate the need for a permanent committee on post-graduate study which will be able to carry out projected plans from year to year in order to avoid the heretofore unavoidable loss of time and change in ideas and perspective that has been the result of an almost complete change in committee personnel each year.

The possibility of asking the appointment of a permanent chairman or secretary of the committee was considered. Dr. Rhinehart recommended that in lieu of the permanent chairman or secretary that the committee ask the House of Delegates to consider the appointment of ten (10) committeemen for a five (5) year term in place of the present six (6). He further recommended that two of these committeemen be appointed co-chairmen with the proviso that the two co-chairmen be retired at the end of the year to be replaced by two more committeemen. In this manner the committee would become semiperpetual and the two doctors with four years seniority would automatically become co-chairmen during their fifth year. This recommendation was discussed by the committee and it was agreed that such a change would be recommended to the House of Delegates for consideration at the annual meeting in April, 1949.

The advantages and disadvantages of five (5) plans for statewide medical study meetings were advanced. No



satisfactory decision was reached during our discussions and it was finally decided that a letter should be written to the secretary of each county society asking him to present, at an open meeting prior to the April state meeting, the question of which type of program the doctors would prefer. The five (5) suggested plans were as follows:

1. That the Committee on Post-Graduate Medical Education furnish funds and support to the Committee on Post-graduate Medical Study of the University of Arkansas School of Medicine, and cooperate with it in securing speakers and publicizing any meeting to be held in connection with University activities.

2. That the Committee on Post-graduate Medical Education hold a semi-annual meeting in Little Rock using any available funds to provide speakers and publicizing such meetings.

3. That the Committee on Post-graduate Medical Education cooperate with the ten (10) councilor districts in planning their semi-annual meetings providing speakers and publicity.

4. That the Committee on Post-graduate Medical Education recommend a division of the state into five (5) districts including northwestern counties in one district, northeastern counties in a second, southeastern counties in a third, southwestern counties in a fourth and counties in the central part of the state in a fifth district. Programs in post-graduate medical education planned and financed by the committee would be held in each of the five (5) districts every three (3) months.

5. That the committee endeavor to secure financial assistance from the Commonwealth Foundation or a similar group so as to make possible the employment of a full time lecturer in obstetrics, pediatrics, medicine or surgery who would give complete post-graduate training courses in various sections of the state throughout the year.

The committee appreciates the difficulties to be encountered in securing the services of first class speakers for many small meetings to be held frequently in smaller centers. It also recognizes the difficulties that busy physicians face in attempting to absent themselves from their patients for several days in order to travel to a distant city for post-graduate study. Our problem is to consider the needs and wishes of the doctors themselves and to attempt to supply the best possible training to the greatest number of those who may be interested.

The committee has sponsored two post-graduate training courses during the year, both provided by the Committee on Post-graduate Medical Education of the University of Arkansas School of Medicine. The post-graduate pediatric course was held at the University Hospital November 4 to 6, 1948, and the post-graduate course in tropical medicine was given January 20 and 21, 1949. Both meetings were well attended.

At the beginning of the year the committee had \$366.03 in the treasury. No funds have been collected or disbursed during the year.

At the conclusion of the meeting, it was agreed that the chairman write to all state organizations that might possibly supply funds to the committee so as to determine its potential assets and further, that the Commonwealth Foundation and other similar groups should be contacted to elicit information regarding the possibility of our securing funds to help out in and expended post-

graduate medical training program. A second meeting to be held early in April will be called to consider any information that may be received during the next two months.

The recommendation of the committee is as follows:

That ten (10) doctors be appointed at the Committee on Post-graduate Medical Education, two for one year, two for two years, two for three years, two for four years and two for five years. That two doctors be retired from the committee each year to be replaced by two new appointees who would be appointed to serve five years. In this manner the committee would become a more permanent organization which could work out the long term plan for post-graduate study best suited to the needs and wishes of the doctors throughout the state.

### COMMITTEE ON RURAL HEALTH

JOE W. REID, Chairman

The one project of the Committee on Rural Health this year is a Health Conference to be held in April. The University of Arkansas Extension Department with leaders of various farm groups are very enthusiastic about such a meeting. This meeting will enable the farmer and the physician to formulate plans and to discuss and solve our own health problems among ourselves.

### COMMITTEE ON INDUSTRIAL HEALTH

EWING M. NIXON, Chairman

One request was made of the committee by Mr. Roland Byrd, State Capitol, Little Rock, Arkansas, for a report of doctors who would be interested in treating the toxic manifestations to the chlorinated halogens, an attempt was made to select those doctors in the industrial areas of the State of Arkansas in which industries using the above compounds were located. The list is voluminous and is on file with Mr. Byrd.

The committee was not called upon to meet in full session, and as a recommendation, it is suggested that the committee meet during the annual meeting of the Society for consideration of any and all subjects pertaining to it.

### COMMITTEE ON LIAISON WITH THE ARKANSAS TUBERCULOSIS ASSOCIATION

A. C. SHIPP, Chairman

The Arkansas Tuberculosis Association will continue to maintain its close cooperation with various other community agencies both volunteer and public. We shall continue to stress our Cooperative Program with the State Health Department, the Division of Tuberculosis Control and the County and City Health Departments.

It is impossible to make a distinction between our program of cooperative case finding, clinics and rehabilitation, since they are so closely tied together. The success of any program, we believe, depends in large measure on the degree of cooperation between the various agencies and individuals.

Jefferson County, with 60% of its population Negro, has had a very heavy tuberculosis case load. The County Medical Society became much interested in the seriousness of the problem and asked the local Tuberculosis



Association to consider ways and means of getting established, a Weekly Chest Clinic, which would provide some supervision for the large number of patients on leave from the Sanatorium or who were on the list waiting admission.

Several preliminary conferences with interested groups were held and two general meetings at which the entire group voted to support the clinic for at least a five-year demonstration period. Present at the meetings and participating in the discussions, were the County Judge, the Mayor, Committee from County Medical Society, Superintendent of the Local Hospital, State Health Department, County Health Department, County Tuberculosis Association, State Division of Tuberculosis Control and the State Tuberculosis Association. Out of these several conferences has grown a well and carefully planned set-up for chest clinics with some financial support or assistance by all the agencies represented at the conferences.

As a guide for setting up the clinic "The Chest Clinic Manual" presented by the National Committee on clinic procedure, was followed. We believe that this clinic is a splendid example of good wholesome county-wide support and we hope that it will be possible to have similar clinics operating in other sections of the state. From the standpoint of the Tuberculous patient, the lack of clinic facilities is one of the weakest spots in the whole Tuberculosis Control Program.

We have held membership in the State Legislative Council and also the Arkansas Public Health Association. We have assisted in every way possible to further extend and develop the State Health Program and to aid in the promulgation and enforcement of much needed basic health laws. Some of these are:

- (a) Law requiring pre-marital examination:
- (b) Chances in Public Welfare Law.
- (c) Strengthen the Division of Mental Hygiene in State Health Department.
- (d) Separate Institution for care of mentally retarded children.
- (e) Passage of legislation which will provide full time Health Units in each county of the state.

The Association gave support to securing from the last legislature, an appropriation to build a unit for the Tuberculous Insane. The contract for this building has been awarded and construction has been started on the grounds of the State Hospital in Little Rock. This will provide facilities for students from the Medical School to get valuable experience in Tuberculosis and Mental Diseases. The Board of the Hospital is to be commended on its stand that the building should be located in Little Rock because of more adequate medical services and Arkansas will be the second state in the United States to provide a separate unit for its Tuberculous Insane.

## COMMITTEE ON MENTAL HYGIENE

GEORGE W. JACKSON, Chairman

The problem of prevention and treatment of emotional reactions and mental illness is one of the greatest at present facing the medical profession. The importance of this group is emphasized by noting their high incidence in the general population. Well informed internists have estimated that from 30% to 70% of patients seeing physicians for any cause come to them

with functional complaints, or complaints for which no organic basis can be found. Others state that one-third of the cases are entirely psychogenic; one-third psychogenic plus organic condition, and one-third organic.

During the past war more than one-half of all rejections from military service were for psychiatric disorders. Of those men accepted for military service and later rejected, more than one-half were also for psychiatric conditions.

From surveys which have been made of mental illness, it is estimated that five per cent of the population are either at present receiving treatment for conditions requiring hospitalization in mental hospitals, or will be confined in such institutions at some time during their lifetime.

Recently a survey of the mental health problems in Arkansas was begun. This survey is being made as a cooperative undertaking of the Arkansas State Hospital, the Arkansas Department of Public Health, and the Institute of Science and Technology of the University of Arkansas. This survey to date reveals the following facts: There were 4,768 in the Arkansas State Hospital on January 19, 1949. This means that about 25 persons out of every 10,000 in the state were in the mental hospital on that date. It is not known how many more cases in the state are in need of hospitalization. But it is probable that there are many since the proportion of the total population in mental hospitals is lower for Arkansas than for about two-thirds of the other states. The actual number of persons in need of psychiatric hospitalization and other types of psychiatric treatment will be better known after the completion of the survey now in progress.

The average number of new admissions to the State Hospital between 1930 and 1944 was 1,609 each year, making a total of 24,135 citizens of Arkansas who received treatment in the State Hospital during the fifteen year period. During the period 1940-1944 an average of over eight persons from every 10,000 citizens of the state entered the State Hospital each year.

The magnitude of the task of the State Hospital can be shown by comparison with other hospital facilities of the state: It has almost one-half of all the hospital beds in the state. It has one-third more beds than all the general hospitals in the state and renders twice as many patient-days of service, though the number of patients it treats is small in comparison. There were 4,779 men and 3,264 women admitted for the first time to the State Hospital in the period of 1940-1944. The rate of first admissions raises almost continuously, from childhood to old age. During the period of 1940-1944 the rate increased from less than one per 10,000 children under ten years of age, to 32 per 10,000 adults seventy and over.

Since the State Hospital is the largest mental institution in the state, a report of some of the increased activities is considered advisable to explain improvements resulting from the increased appropriation made possible by the legislature in 1947: The appropriation per day per patient during the period 1947 to 1949 amounts to approximately \$1.28. This was an increase of approximately 86 cents over the previous period. The ward attendants have been placed on three shifts of eight hours each, resulting in much better care for the patients. Gradually enough doctors have been employed



to enable the institution to now provide one doctor in charge of each hospital building. The use of mechanical restraints are now used only occasionally and to a very limited extent. Untidy wards have been gradually eliminated by better attention and training of patients and improved care from the attendants and supervising medical staff. A program of attendant training has been instituted under the supervision of a Director of Nurses and an assistant nurse. Lectures and practical demonstrations in the care and treatment of the mentally ill and physically sick patients have resulted in a healthier attitude toward the hospital by both the attendants and the patients. Where previously no records were being kept on the wards, there is now gradually being instituted a system whereby each patient has a ward chart which includes a medication sheet on which all medications and treatments are recorded, progress sheet, and a clothing record—all orders by the medical staff being recorded in a doctor's order book. Children confined in the institution who, for the most part, are mentally deficient have now been moved to one building and a fulltime teacher and assistant are now in charge of the training and education of these individuals. This work is progressing satisfactorily with considerable enthusiasm on the part of the children and the supervising staff.

The treatment of the physically ill patients has been expanded by an arrangement with the University of Arkansas School of Medicine. The Medical School furnishes two medical residents, one surgical resident, and a resident in pathology who rotate every six months. These residents are under the supervision of the medical staff of the Medical School and the staff members visit the hospital several times weekly furnishing consulting service in medicine, surgery, orthopedics, obstetrics, gynecology, and pathology.

The recreational and occupational facilities have been increased. At the present time movies are being shown to the patients twice weekly, both white and colored, and there is also a weekly dance for each group. Interested lay organizations provide special parties for the patients at frequent intervals. During 1948 the occupational therapy department furnished therapy to 2,593 patients. The special treatment department of the hospital has been greatly expanded so that a much larger number of patients are now receiving specific therapy. On December 15, 1948, 270 patients were receiving electroshock therapy and during the year a total of 891 patients were treated, receiving a total of 10,034 electroshock treatments. 68 patients were receiving insulin shock treatment in December. The hydrotherapy department treated 1,270 patients with a total of 49,929 treatments in 1948. This included continuous tub, baths, steam cabinets and sedative packs. A total of 208 major operations were performed on patients during 1948. There were 22,482 patients and 780 employees X-rayed on regular size films; in addition 2,731 35 mm chest films were made on patients and employees. The results of the extended medical services can best be emphasized by quoting some statistics: In 1945, 1,961 patients were admitted to this hospital and 1,048 patients were discharged. In 1947, 2,050 patients were admitted and 1,519 were discharged. The death rate among hospital patients has been reduced from a total of 601 in 1945 to 379 for the eleven months' period through November, 1948.

Many improvements have been made in the physical

plant but will not be included in this report. The legislature appropriated \$2,000,000 for construction during the two-year period. This amount was not adequate to carry out the construction as outlined by the legislature. It was possible to obtain approximately \$1,000,000 in federal matching funds to supplement the appropriation and all units are now under contract. The units include an addition to the laundry at Benton; a new cold storage and cannery at the Benton unit; a 400-bed ward and 60-bed infirmary at the Benton unit; a new laundry at the Little Rock unit; a new cold storage at Little Rock, and a 100-bed tubercular building at the Little Rock unit.

Adequate treatment in our state mental institutions alone is not adequate to solve the mental health program of the state. The early detection and prevention of mental illness are necessary, as well as an adequate training program to fulfill the statewide needs of personnel. Much has been done during the past year by many organizations throughout the state and much is being done at present which merits the full cooperation of the Medical Society. The State Mental Hygiene Society recently formed in the state will render a great service in the education of the public and in stimulating the necessary assistance in carrying out the programs initiated. The Council on Children and Youth during the past year made a survey of the mentally retarded in the state and found that there were approximately 5,000 mentally retarded children within the state between the ages of four and eighteen years. These individuals are unable to receive proper training in the regular public school program. Of this number 4,500 could be trained in the public school system if special classes were provided. 500 would require training in an institution. The Council recommends the establishment of a special unit for the training of these children, to be located near one of the state teachers colleges. This would make possible the adequate training of this group of children, as well as make possible special classes of instruction for the training of the necessary teachers to supply the needs.

An effort is being made at present to relocate the Arkansas School of Medicine and Memorial Hospital on the hospital grounds of the State Hospital. The relocation of the Medical School on the hospital grounds would make possible expansion of the present four-year program in psychiatry for medical students, increased facilities for the training of residents in psychiatry, as well as residents in other specialties in the treatment of mental disorders.

Federal funds received through the State Health Department during the past year have made possible the establishment of a mental hygiene clinic at the University of Arkansas School of Medicine and this clinic can now receive patients referred for examination and treatment on an out-patient basis. This clinic is of course accessible to only a limited number of people but is a step forward and the first of many such clinics which should be established throughout the state.

The number of elderly mentally ill people has greatly increased during the past few years and at present there are approximately thirty cases per month admitted to the State Hospital. The problem of the treatment of this group should receive considerable attention. The life expectancy is increasing from year to year and it can



be expected that this group will greatly increase during the next few years.

In a report of this nature, it is impossible to go into detail and adequately cover the field of mental hygiene within our state.

In conclusion mention should be made of the needs of providing psychiatric service to our penal institutions and correctional institutions, as well as service to the various courts over the state.

Recommendation of the committee are as follows:

1. The society as a whole should endorse and support the State Mental Hygiene Society.

2. The establishment of a separate institution near one of the teachers training colleges in the state for the retarded children requiring institutional care.

3. The establishment of a separate institution for the non-psychotic epileptics.

4. Recommends the establishment of the Medical Center on the State Hospital grounds as the committee considers this a forward step in the treatment of the mentally ill.

5. That a competent and qualified psychiatric service be provided the penal and correctional institutions of the state. This service to be furnished by the Bureau of Mental Hygiene of the State Health Department.

6. The Society aid in making available beds in general and regional hospitals for the examinations and treatment of the mentally ill.

## COMMITTEE ON THE AUXILIARY TO THE ARKANSAS MEDICAL SOCIETY

LOUIS K. HUNDLEY, Chairman

The Auxiliary in 1948-49, under the leadership of Mrs. Mason G. Lawson has had a most active and profitable year. Much progress has been made in enlarging both the membership and scope of this organization. The Auxiliary is to be highly commended for its very complete educational program, with particular reference to national policies and legislation. Their aim has been to acquaint each Auxiliary member with all legislation which might affect the practice of medicine; to inform themselves in such a way that they can, by both individual conversation, and by public speeches, and articles, help educate the public on medical affairs.

Mrs. Lawson's report gives all details of the activities of the Auxiliary and is most complete. I would like to call attention to the call meeting of the Auxiliary board for the purpose of hearing Dr. Clay Chenault explain the Medical School's plan for the new Medical Center. This meeting was held at our request and was well attended. The Board voted unanimously to support the Medical Center plan.

Attention is called to the large amount of travel which is necessary for the President of the Auxiliary as well as the President-elect. At present the President has a travel allowance of \$100 a year and the President-elect none. (This is financed by the Auxiliary.) It is felt that the Society should help the Auxiliary by giving them an increased allowance for this purpose.

It is obvious that our Auxiliary is ready, willing and fully capable of doing a great deal more to help our Society than they have been allowed to do in the past. After studying the program in other states, in which the Auxiliaries are encouraged to carry on an intensive Public Relations Program for the Society, I am convinced we have neglected to use to full advantage one of our

greatest assets—an intelligent, enthusiastic, well organized Auxiliary.

Recommendations:

1. That the President of the Woman's Auxiliary be allowed a place at all Council Meetings, without vote, for the purpose of keeping her completely informed on the policies and activities of the Medical Society.

2. An allowance of \$500 for the President and \$100 for the President-elect of the Auxiliary, for reimbursement for travel expenses.

3. Payment of Dues for membership in Arkansas Legislative Council.

4. Appropriation of the usual fund for publishing minutes of the state meeting.

5. Designation of one member of each County Society as advisor to that Society's Auxiliary.

## REPORT OF THE PRESIDENT OF THE WOMAN'S AUXILIARY TO THE ARKANSAS MEDICAL SOCIETY TO THE CHAIRMAN OF THE ADVISORY BOARD

As President of the Woman's Auxiliary to the Arkansas Medical Society I have endeavored to follow the general outline of the Woman's Auxiliary to the American Medical Society and adapt it to fit our local needs in Arkansas. We have emphasized Public Relations, Legislation, both State and National, a larger and more informed membership, the organization of new Auxiliaries wherever possible and the securing of members-at-large in counties where no organization is possible. We have urged County Auxiliaries to place Hygeia subscriptions in local and rural schools. This has worked well and has been well received by the teachers in these schools. Each member has been urged to have a complete physical examination once each year. Every Auxiliary is expected to observe Doctor's Day in March to honor local Doctors. Some will have editorials in their local papers, the ministers of the various churches will make comments about the value of the physician to their community so that the laity may also become more conscious of their Doctor's services.

Much emphasis has been placed on Legislation. Our members have been urged to listen to radio broadcasts, read the newspapers and periodicals, so that they may be aware at all times of pending legislation concerning the medical profession. They have been instructed to become well informed so that they may interpret correctly to the public any proposal affecting their health and general welfare.

We have cooperated with the Medical Society in informing the public of a need for a Medical Center. Each member of the Auxiliary was asked to contact the Legislators in their district, informing them of their desire that a complete Medical Center be established.

Each County Auxiliary has been urged to take an active interest in local civic affairs. We have insisted that our members as individuals actively engage in any local project which may be of value to her community, such as Health Chairman of local clubs, cooperation with local hospitals, etc.

One new committee was organized at the Post-Convention Board meeting. The Martha Harding Gann Memorial Loan Fund for student nurses was given \$1,500 by Dr. Dewell Gann, Jr., of Benton, in memory of his mother who was the second President of the State Auxiliary. This fund was incorporated with the permission of the Medical Society. It is now a non-profit organization and tax exempt. We have one loan out at



present with several prospects of other loans in the near future. Mrs. Curtis W. Jones of Benton was made permanent chairman of this fund at the request of Dr. Gann.

The Ilse F. Oates Student Loan Fund for medical students has been increased substantially by contributions from county Auxiliaries. We have at present one loan out and, in all, 74 loans have been made since the fund has been active.

Through the cooperation of Mrs. W. R. Brooksher, Pulaski County will have a national speaker from the American Field Army, Mrs. David S. Long, who will speak on Cancer Control. Arrangements have also been made for Mrs. Long to speak before the Women of the Churches.

Mrs. C. W. Dixon has completed twelve Biographies and they are now ready for publication in the space allotted to the Auxiliary by the Arkansas Journal.

We are cooperating with the Auxiliary to the Southern Medical Association in creating a committee on research. The County Auxiliaries have been asked to send in any outstanding paper or talk by Auxiliary member or members of the medical societies so that they may be incorporated in the files of the Romance and Research Committee of the Southern Auxiliary.

The Earle Chambers Memorial Library Fund sponsored by the Auxiliary is used for the three state sanatoria to add new books to their libraries. We hope to have approximately eight hundred dollars (\$800) in the fund by April 15, 1949.

### COUNTY ACTIVITIES

Jefferson County has chosen as a project for the year the redecoration and furnishing of a room in the Pine Bluff hospital.

Union County has established a nursing scholarship in the Warner Brown Hospital. They also assisted in the Warren disaster by sending a contribution of clothes.

Craighead-Poinsett Counties expect to buy a light wheelchair for use in the local hospital.

Garland County has placed Hygeia in all county schools.

Hempstead County is working on nursing recruitment.

Sevier County has made contributions to all of the Auxiliary Loan Funds and have also placed Hygeia in the schools. A contribution has been made to the library fund.

Pulaski County expects to contribute approximately two hundred and fifty dollars (\$250) to the Ilse F. Oates Student Loan Fund. They have established a committee on Nursing Relations to provide recreation for student nurses in the local hospitals. They have "adopted" a student nurse who is training in Baptist Hospital with funds from the State Auxiliary Nurses Loan Fund. She has been entertained in the homes of the committee and was given a gift when she was capped and at Christmas. This Auxiliary sponsors the Medical Dames, wives of medical students in the University of Arkansas, School of Medicine. There are 55 Dames who will be future Auxiliary members and the Auxiliary feels that when these girls go back to their home counties they will be a valuable addition to their local Auxiliaries.

This is an incomplete report on county activities as reports are not yet due.

### PERSONAL ACTIVITIES

#### Board Meetings

April 16, 1948—Post-Convention School of Instruction for Board Members.

October 18, 1948—Fall Board Meeting—Reports of Officers, Committee Chairmen, and County Presidents. Election of nominating committee.

December 8, 1948—Called to discuss proposed Medical Center. Dr. Louis K. Hundley, Chairman of the Advisory Board, and Dr. Clay Chenault, Vice-President, in charge of Medical Education of the University of Arkansas, explained the proposal.

January 28, 1948—Mid-Winter Board Meeting. Report of Nominating Committee. President—Mrs. Louis K. Hundley, Pine Bluff. President-Elect—Mrs. Warren S. Riley, El Dorado. First Vice-President—Mrs. P. W. Lutterloh, Jonesboro. Third Vice-President—Mrs. J. P. Price, Monticello. Third Vice-President—Mrs. J. G. Martindale, Hope. Fourth Vice-President—Mrs. J. K. Donaldson, Little Rock. Treasurer—Mrs. V. T. Webb, Little Rock; Publicity Secretary—Mrs. Joe Verser, Harrisburg. Historian—Mrs. C. W. Garrison, Little Rock. Parliamentarian—Mrs. Martin Hawkins, Searcy. Poet Laureate—Mrs. George B. Fletcher, Hot Springs. Mrs. Hundley has named Mrs. Howard Stern of Pine Bluff as Secretary.

April 14, 1949: Pre-Convention Board Meeting.

### AUXILIARIES VISITED TO DATE

May 6 and 7, 1948—Organized a new Auxiliary in Greene-Clay Counties. Mrs. Charles R. Henry, Mrs. Louis K. Hundley, Mrs. P. W. Lutterloh, and Mrs. Joe Verser assisted. Visited Craighead-Poinsett Auxiliary.

June 4, 1948—Visited Ninth Councilor District in Harrison.

June 21 to 25, 1948—Attended Auxiliary to The American Medical Association in Chicago. Five delegates were present—Mrs. Joe Verser, Harrisburg; Mrs. Ross Fowler, Harrison; Mrs. L. J. Kosminsky, Texarkana; Mrs. L. H. McDaniel, Tyronza; Mrs. D. A. Rhinehart, Little Rock.

September 14, 1948—Jefferson County at Pine Bluff. October 22, 1948—Bowie-Miller at Texarkana, accompanied by Mrs. C. W. Garrison.

November 4 and 5, 1948—Attended fifth annual conference for Presidents and President-Elect in Chicago.

December 1, 1948—Accompanied Mrs. Charles R. Henry, First Vice-President, and Mrs. Louis K. Hundley, President-Elect, to El Dorado. Mrs. Henry spoke on legislation.

January 7, 1949—Pine Bluff with Mrs. Charles R. Henry for a program on legislation.

January 17, 1949—Garland County at Hot Springs accompanied by Mrs. Charles R. Henry.

February 2, 1949—Union County at El Dorado.

February 3, 1949—Columbia County at Magnolia.

February 4, 1949—Hempstead County at Hope.

February 5, 1949—Howard County at Nashville to discuss organization with Sevier County.

February 8, 1949—Sevier County at DeQueen.

February 16, 1949—Pulaski County at Little Rock.

March 14, 1949—Sebastian County at Fort Smith.

### STATE CONVENTION

General Chairman—Mrs. J. K. Donaldson, Little Rock.

All committees have been selected and the entire program planned. Mrs. Luther H. Kice, President of the Woman's Auxiliary to the American Medical Association, will be a guest and the speaker at a luncheon meeting on April 15. Mrs. Joseph W. Kelso, President of the Woman's Auxiliary to the Southern Medical Society, will also be a guest along with Mrs. Neil Woodward, Presi-



dent of the Woman's Auxiliary to the Oklahoma State Medical Association. Mrs. Kelso will be the luncheon speaker on April 14th.

My sincere thanks for your cooperation and interest throughout the year. It has been a great pleasure and privilege to work under your direction.

(MRS. MASON G.) MONA LAWSON,  
President, Woman's Auxiliary to the  
Arkansas Medical Society.

### COMMITTEE ON EMERGENCY MEDICAL CARE

ROY I. MILLARD, *Chairman*

The committee has divided the state into five groups of fifteen counties each, with one member of the committee responsible for the organization of a county set-up for Civilian Defense. It is our plan to form the framework of Civilian Defense according to the National Office of Civilian Defense. The committee has secured the cooperation of the Governor and it is expected that a complete set-up on a city and county basis will be established before the state meeting in April.

### SPECIAL COMMITTEE TO STUDY COMMITTEE ORGANIZATION

ELLERY C. GAY, *Chairman*

**Authority:** This committee was appointed by the President, P. W. Lutterloh at the Annual Session, 1948. The following recommendations are also given with the approval of the incoming President, Euclid Smith.

**Committee Report:** The committee recommends that this report be accepted and the following committees placed in action for a two-year period. At the end of this trial period, if the arrangement is satisfactory, a resolution will be prepared for a necessary change in the Constitution and By-Laws to make this arrangement permanent.

A chairman shall be appointed to head each major committee. Each major committee shall have assigned to it a Vice-President who shall serve as a liaison officer to the President. It shall also be the duty of each Vice-President to see that the committees assigned to him have their annual reports prepared sixty days prior to the Annual Meeting. Specific recommendations made by each committee shall be enumerated in a final paragraph of the committee report for review by the Reference Committee at the annual session.

#### Chapter VIII—Committees

Section I. The standing committees of this Society shall be as follows:

#### A. Committee on the Annual Session

1. Program Committee
2. Scientific Exhibit Committee

(Note: These committees shall be directly responsible to the President and will work under his direction.)

#### B. Committee on Medical Legislation and Legal Medicine

1. Medical Legislation Committee
2. Legal Medicine Committee

#### C. Committee on Medical Service

1. Medical Service Committee
2. Military Medicine Committee
3. Veterans Administration Committee
4. Industrial Health Committee
5. Mental Hygiene Committee
6. Public Health Committee

#### D. Committee on Public Relations

1. Planning Committee
2. Speaker's Bureau Committee

#### E. Committee on Medical Education and Hospitals

1. Post-graduate Study Committee
2. Cancer Control Committee
3. Tuberculosis Committee
4. Maternal and Child Welfare Committee
5. Committee for Liaison with the City Health Department
6. Committee for Liaison with the State Hospital for Nervous Diseases
7. Committee on the State Medical Board of the Arkansas Medical Society

### COMMITTEE ON SCIENTIFIC EXHIBITS

H. KING WADE, JR., *Chairman*

Having had no previous experience with this type of report, I am sure that you will find this one too full for detail. However, I know that you will cut it down to size, and I do feel that some of this information may be helpful in the future.

The Committee on Science Exhibits contacted by letter and telephone the following organized groups:

Cooper Clinic, Fort Smith.  
Johnson and Ketz Clinic, Batesville.  
Harris Hospital and Clinic, Newport.  
Gilbert Clinic, Little Rock.  
Wade Clinic, Hot Springs.  
Wilson Clinic, Magnolia.  
Conway Medical Clinic, Conway.  
Hawkins Clinic and Hospital, Searcy.  
Robins Clinic, Camden.  
Southern Clinic, Texarkana.  
State T. B. Sanatorium.  
University of Arkansas Medical School.  
Holt-Krock Clinic, Fort Smith.  
North Arkansas Clinic, Batesville.  
Buchanan Clinic, Prescott.  
Army-Navy General Hospital, Hot Springs.  
State Hospital, Little Rock.  
Daniel-Harrell Clinic, Texarkana.  
Trinity Hospital, Little Rock.  
Baptist State Hospital, Little Rock.

Through the individual committee members, and with the help of other doctors who were not members of the committee, an attempt was made to contact the majority of the county medical societies in the state, requesting them to give exhibits as a group, or as individuals, if so desired. The following groups are desirous of giving exhibits:

State Hospital.  
Garland County Medical Society.  
Daniel-Harrell Clinic.  
North Arkansas Clinic.  
Cooper Clinic.  
Trinity Hospital.  
Baptist State Hospital.  
Southern Clinic.  
University of Arkansas Medical School (5 different exhibits).

This makes a total of thirteen planned exhibits. Most of the groups contacted responded very favorably. Many indicated an interest in this sort of thing, and many indicated that they might possibly wish to have exhibits next year.



I recommend to the Society:

1. Adequate space be provided for doctors or groups who are exhibiting.
2. That the space for such exhibits be placed in a prominent and accessible place.
3. That the presiding officer call attention to these exhibits at the opening session, and urge the general membership to give them some attention.
4. That the committee diligently follow up this work in the coming year, as, by so doing, I feel that this particular exhibit can be made into a prominent part of our medical meetings.

## REPORT OF EXECUTIVE SECRETARY

MR. SID WRIGHTSMAN, JR.

The Society employed your executive secretary on May 10, 1948. The following month, suitable office space was found at 310 Professional Building, Fort Smith, where at the present time, under the guidance of your secretary, headquarters activities are maintained.

During the year, your executive secretary was sent to the offices of the Oklahoma State Medical Association to observe and study routine activities undertaken at a typical state medical association headquarters, the duties involving the state association executive secretary. He attended both the Annual and Interim Sessions of the American Medical Association to familiarize himself with actual procedures of the House of Delegates there at and to meet executive secretaries of other state medical associations and their officers. Frequent opportunities were awarded throughout the year to visit meetings of both county and councilor district medical societies where intimate contacts among Society members were established. In January, he spent three days at the State Legislature observing procedures and meeting district representatives and senators. In his opinion, progress in and increased understanding of his position in the Society have been achieved as a result of these activities.

Following the national election in November, with the accompanying wave of interest in Turman's compulsory health insurance program, lay organizations, learning of the availability of the Society's executive secretary, have provided him opportunities to explain the evils of political medicine and the benefits inherent in voluntary prepayment plans for medical care.

Following the action of the House of Delegates at the Interim Session of the American Medical Association to assess each member \$25, many members of the Society responded with contributions immediately. To date, 492 Society members have submitted their special assessments, a number representing approximately 40 per cent of the total 1948 membership and a contribution of \$12,300.00 to the fund, ultimately expected to reach a \$3,500,000 mark, to provide a two-year national education program informing the public about the progress of American medicine, evils of socialized medicine, and the need of increasing over the nation voluntary prepayment medical care plan coverage.

On December 31, there were 1,223 Society members. Today, less than two months since this office received the first payment of 1949 dues, the membership is 591.

For their continuous cooperation and many courtesies shown him throughout this past year, the executive secretary expresses much appreciation to members of the Arkansas Medical Society.

## PRELIMINARY PROGRAM Seventy-Third Annual Session Arkansas Medical Society

Robinson Auditorium

Little Rock, Arkansas

April 14, 15, 16, 1949

Thursday, 9:30 A. M.

Invocation.

President's Address—P. W. Lutterloh, M.D., Jonesboro.  
9:45 A. M.

"Pentothal Anesthesia Using Continuous Drip Method"—  
B. E. Barlow, M.D., Dermott.

10:05 A. M.

"Caution—Curves Ahead"—Mr. Mac F. Cahal, Executive Secretary, American Academy of General Practice, Kansas City, Missouri.

10:25 A. M.

"Puerperal Gynecology"—Eugene T. Ellison, M.D., Texarkana.

10:45 A. M.

"Hemochromatosis: Preliminary Report of a Case of a White Female without Diabetes Mellitus"—Charles T. Chamberlain, M.D., Fort Smith.

11:05 A. M.

"Rupture of the Pregnant Uterus"—Hubert L. Allen, M.D., Alton, Illinois.

11:30 A. M.

AWARDS TO FIFTY-YEAR MEMBERS OF THE ARKANSAS MEDICAL SOCIETY.

Thursday, 1:30 P. M.

Scientific Program Presented by the Faculty of the University of Arkansas School of Medicine

"Wire Sutures—Surgical Status and Technical Aspects"—Gilbert O. Dean, M.D., Professor and Head of Department of Surgery.

"Intra-Vascular Clotting"—Carl Rosenbaum, M.D., Associate Professor of Surgery.

"Treatment of Purulent Meningitis"—William A. Reilly, M.D., Professor and Head of Department of Pediatrics.

"Anticoagulants in Heart Disease"—R. E. McLochlin, M.D., Associate Professor of Medicine.

"Prejudicial Practice in the Management of Eclampsia"—Willis E. Brown, M.D., Professor and Head of Department of Obstetrics and Gynecology.

"Fractures of the Spine Following Electric Shock Therapy"—I. Meschan, Director of Radiology.

4:00 P. M.

## House of Delegates

Friday, April 15, 9:30 A. M.

"Differential Diagnosis and Treatment of Inguinal Hernia"—A. D. Garner, M.D., Paragould.

9:50 A. M.

"Newer Management of Carcinoma of the Bladder by Cystectomy"—H. Fay H. Jones, M.D.; Henry Hollenberg, M.D., and W. G. Cooper, M.D., Little Rock.

10:15 A. M.

"Diagnosis and Treatment of Poliomyelitis"—Edward S. Miller, M.D., University of Colorado School of Medicine, Denver.

11:00 A. M.

"Treatment of Diseases of the Thyroid"—George Crile, Jr., M.D., Cleveland Clinic, Cleveland, Ohio.



## Memorial Service

Friday, 2:00 P. M.

"The Practitioner's Problem in Evaluating Thoracic Cases in Light of Modern Antibiotic Therapy"—J. K. Donaldson, M.D., Little Rock.

2:20 P. M.

"The Diagnosis and Treatment of Cardiac Arrhythmias"—A. Carlton Ernstene, M.D., Cleveland Clinic, Cleveland, Ohio.

3:00 P. M.

"The Present Status of Cancer Therapy"—R. Lee Clark, Jr., M.D., Director and Surgeon-in-Chief, Anderson Hospital for Cancer Research, Houston, Texas.

3:45 P. M.

"Diverticulitis of the Sigmoid Colon"—Frank G. Kumpuris, M.D., Little Rock.

4:05 P. M.

"Coronary Artery Disease"—Joe Verser, M.D., Harrisburg.

Saturday, April 16, 9:30 A. M.

"Early Diagnosis in Congenital Dislocation of the Hip"—S. B. Thompson, M.D., Little Rock.

9:50 A. M.

"The Treatment of Cardiac Emergencies"—A. Carlton Ernstene, M.D., Cleveland Clinic, Cleveland, Ohio.

10:30 A. M.

"Diseases of the Pancreas and Biliary Tract"—George Crile, Jr., M.D., Cleveland Clinic, Cleveland, Ohio.

11:15 A. M.

Subject to Be Announced—Honorable Carl Hendrix, Speaker, Arkansas House of Representatives.

## EENT SECTION PROGRAM

Hotel Marion

Friday, April 15

9:00 A. M.

Chairman's Address.

9:15 A. M.

"Ocular Muscles"—Dr. Richard G. Scobee, St. Louis.

10:30 A. M.

"Treatment of External Otitis"—Dr. Ben Senturia, St. Louis.

12:30 P. M.

Luncheon—To be followed by Round-Table discussion and business meeting.

## PRELIMINARY PROGRAM

Twenty-Fifth Annual Session  
WOMAN'S AUXILIARY

to the

ARKANSAS MEDICAL SOCIETY

Hotel Marion

Little Rock, Arkansas

April 14 and 15, 1949

## OFFICERS

PRESIDENT—Mrs. Mason G. Lawson, Little Rock.

PRESIDENT-ELECT—Mrs. Louis K. Hundley, Pine Bluff.

FIRST VICE-PRESIDENT—Mrs. Charles R. Henry, Little Rock.

SECOND VICE-PRESIDENT—Mrs. Warren Riley, El Dorado.

THIRD VICE-PRESIDENT—Mrs. Fount Richardson, Fayetteville.

FOURTH VICE-PRESIDENT—Mrs. H. G. Jackson, Little Rock.

TREASURER—Mrs. Verdo T. Webb, Little Rock.

SECRETARY—Mrs. Lamar McMillin, Little Rock.

PUBLICITY SECRETARY—Mrs. J. K. Donaldson, Little Rock.

HISTORIAN—Mrs. C. W. Garrison, Little Rock.

PARLIAMENTARIAN—Mrs. E. D. McKnight, Brinkley.

POET LAUREATE—Mrs. George B. Fletcher, Hot Springs.

## COUNCILORS

Mrs. L. J. Kosminsky, Texarkana.

Mrs. A. C. Shipp, Little Rock.

Mrs. E. L. Thompson, Hot Springs.

Mrs. Fred Hames, Pine Bluff.

Mrs. W. J. Hunt, Warren.

## COMMITTEE CHAIRMEN

ORGANIZATION—Mrs. Charles R. Henry, Little Rock.

EDUCATION AND PUBLIC HEALTH—Mrs. Warren S. Riley, El Dorado.

HYGEIA—Mrs. Fount Richardson, Fayetteville.

PUBLIC RELATIONS—Mrs. H. G. Jackson, Little Rock.

PHYSICAL HEALTH EXAMINATIONS—Mrs. Donald W. Dkstra, Little Rock.

MEMORIAL AND CHAPLAIN—Mrs. E. L. Thompson, Hot Springs.

LEGISLATION—Mrs. Howard Stern, Pine Bluff.

ILSE F. OATES STUDENT LOAN FUND—Mrs. C. E. Oates, Little Rock.

MARTHA HARDING GANN MEMORIAL LOAN FUND—Mrs. C. W. Jones, Benton.

DOCTOR'S DAY—Mrs. Allen R. Russell, Pine Bluff.

ARCHIVES—Mrs. R. B. Robins, Camden.

CONSTITUTION AND BY-LAWS—Mrs. Calvin Churchill, Batesville.

CANCER CONTROL—Mrs. W. R. Brooksher, Fort Smith.

BIOGRAPHY—Mrs. C. W. Dixon, Gould.

RESEARCH—Mrs. H. K. Wright, Hot Springs.

POST-WAR PLANNING—Mrs. Ulys Jackson, Harrison.

EXHIBITS—Mrs. Garland Murphy, Jr., El Dorado.

FINANCE—Mrs. Barton A. Rhinehart, Little Rock.

BULLETIN—Mrs. H. L. Brown, Malvern.

ERLE CHAMBERS MEMORIAL LIBRARY FUND—Mrs. Carroll F. Shukers, Little Rock.

MEMBERS-AT-LARGE—Mrs. Martin Hawkins, Searcy.

DELEGATES TO THE LEGISLATIVE LEAGUE — Mrs. Howard Stern, Pine Bluff and Mrs. Charles R. Henry, Little Rock.

COUNCIL WOMAN TO THE SOUTHERN MEDICAL ASSOCIATION—Mrs. J. P. Price, Monticello.

## COUNCIL WOMEN AND DISTRICTS

FIRST—Clay, Crittenden, Craighead, Greene, Lawrence, Mississippi, Poinsett and Randolph counties. Mrs. Joe Verser, Harrisburg.

SECOND—Clebune, Fulton, Independence, Izard, Jackson, Sharp, Stone and White counties. Mrs. O. J. T. Johnston, Batesville.

THIRD—Arkansas, Cross, Lee, Monroe, Phillips, Prairie, Saint Francis and Woodruff counties. Mrs. Thomas Champion, Stuttgart.

FOURTH—Ashley, Bradley, Chicot, Cleveland, Desha, Drew, Jefferson and Lincoln counties. Mrs. R. D. Dickins, Pine Bluff.

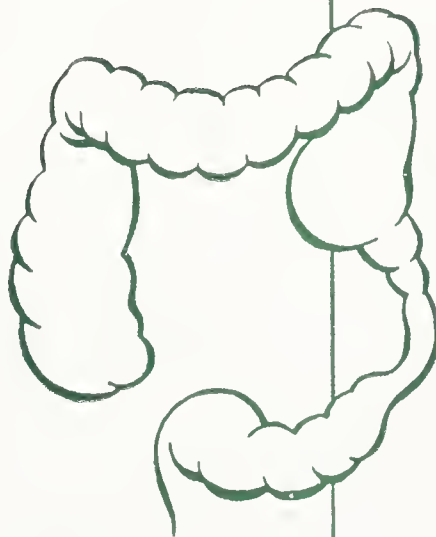
FIFTH—Calhoun, Columbia, Dallas, LaFayette, Ouachita



# Bowel Management of the Irritable Colon . . .

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"As an aid in reestablishing a normal rhythm, the temporary use of a bland bulk-producer . . . may be beneficial. . . Patients having irritable colon who believe they are suffering from constipation commonly use high-residue diets, . . . They may not realize that this practice is similar to using irritating cathartics or large enemas and often increases the tendency to constipation by increasing spasm of the colon."\*



Metamucil is "a bland bulk-producer" which gently initiates reflex peristalsis and movement of the intestinal contents. The "smoothage" therapy of Metamucil encourages a return of the normal function of the colon without irritating the mucosa.

## METAMUCIL®

is the highly refined mucilloid of *Plantago ovata* (50%), a seed of the psyllium group, combined with dextrose (50%) as a dispersing agent.



**SEARLE** RESEARCH IN THE SERVICE OF MEDICINE

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\*Collins, E. N.: The Diagnosis and Treatment of Irritable Colon: Physiologic, Local, Irritative and Psychosomatic Factors, *M. Clin. North America* 32:398 (March) 1948.



and Union counties. Mrs. L. G. Fincher, El Dorado.

SIXTH—Hempstead, Howard, Little River, Miller, Nevada, Pine, Polk and Sevier counties. Mrs. J. G. Martindale, Hope.

SEVENTH—Clark, Garland, Hot Springs, Montgomery and Saline counties. Mrs. C. F. Peters, Malvern.

EIGHTH—Conway, Faulkner, Grant, Lonoke, Perry, Pope, Pulaski, Van Buren and Yell counties. Mrs. Byron Bennett, Little Rock.

NINTH—Baxter, Boone, Carroll, Marion, Newton and Searcy counties. Mrs. J. G. Gladden, Harrison.

TENTH—Benton, Crawford, Franklin, Johnson, Logan, Madison, Sebastian, Scott and Washington counties. Mrs. Ralph Crigler, Fort Smith.

### ADVISORY BOARD

Dr. Louis K. Hundley, Pine Bluff, Chairman.

Dr. Charles R. Henry, Little Rock.

Dr. A. C. Shipp, Little Rock.

### COUNTY PRESIDENTS

Arkansas—Mrs. Robert Whitehead, Jr., DeWitt.

Bowie-Miller—Mrs. Roy Basket, Texarkana.

CRAIGHEAD-POINSETT—Mrs. P. W. Lutterloh, Jonesboro.

Columbia—Mrs. Joe Rushton, Magnolia.

Crittenden—Mrs. T. S. Hare, Crawfordsville.

Garland—Mrs. W. A. Goodrum, Hot Springs.

Greene-Clay—Mrs. W. M. Lamb, Paragould.

Hempstead—Mrs. Jim McKenzie, Hope.

Hot Spring—Mrs. Robert Lee Calloway, Batesville.

Jackson—Mrs. T. E. Williams, Newport.

Howard-Pike—Mrs. F. F. Ferguson, Nashville.

Jefferson—Mrs. C. W. Anderson, Pine Bluff.

Johnson—Mrs. W. R. Scarborough, Clarksville.

Monroe—Mrs. E. D. McKnight, Brinkley.

Ouachita—Mrs. R. C. Kernerly, Camden.

Pulaski—Mrs. Carroll F. Shukers, Little Rock.

Sebastian—Mrs. T. P. Foltz, Fort Smith.

Sevier—Mrs. R. C. Dickinson, Horatio.

Southeast—Mrs. W. A. Regnier, Hamburg.

Union—Mrs. J. H. Pinson, Jr., El Dorado.

Washington—Mrs. Max McAllister, Fayetteville.

Ninth Councilor District—Mrs. Ross Fawler, Harrison.

### SPECIAL COMMITTEES (LOCAL)

GENERAL CHAIRMAN—Mrs. J. K. Donaldson.

ENTERTAINMENT—Mrs. W. G. Cooper, Jr., Chairman.

REGISTRATION—Mrs. J. B. Crawford, Chairman; Mrs. Paul Fulmer, Vice-Chairman; Mrs. Sarl Rosenbaum, Mrs. W. A. Snodgrass, Jr., Mrs. K. W. Cosgrove, Mrs. B. A. Bennett, Mrs. Fred Harris, Mrs. Ross Bizzell.

TICKETS—Mrs. Philip Cullen, Chairman; Mrs. Eugene Crawley, Mrs. Ben Means, Mrs. H. A. Armstrong.

COURTESY—Mrs. Robert Thompson.

TRANSPORTATION—Mrs. Donald W. Dykstra.

PUBLICITY—Mrs. Mahlon D. Prickett.

MENU—Mrs. John M. Smith, Mrs. R. M. Eubanks.

FLOWERS—Mrs. Robert Watson, Chairman; Mrs. Hoyt Allen, Mrs. Joe Bounds, Mrs. H. W. Sterling, Mrs. Alfred Kahn, Jr.

PAST-PRESIDENT'S BREAKFAST—Mrs. B. A. Rhinehart.

FLOWERS FOR BREAKFAST—Mrs. Barney Briggs.

GENERAL INFORMATION—Mrs. Erner Jones.

FAVORS—Mrs. Gordon Page Oates, Mrs. Harry Hayes.

### PROGRAM

THURSDAY, APRIL 14, 1949

9:00 A.M.—REGISTRATION—Ante-room to Continental Room, Hotel Marion.

11:00 A.M.—PRE-CONVENTION BOARD MEETING.

12:00 Noon—LUNCHEON FOR THE GENERAL MEMBERSHIP—Continental Room, Hotel Marion.

INVOCATION—Mrs. E. L. Thompson, Hot Springs.

ADDRESS—Mrs. Joseph W. Kelso, President, Woman's Auxiliary to the Southern Medical Association, Oklahoma City.

### GENERAL SESSION

2:00 P. M.—OPENING OF SESSION — Continental Room, Hotel Marion.

PRESIDING — Mrs. Carroll F. Shukers, President, Woman's Auxiliary to the Pulaski County Medical Society.

INVOCATION—Mrs. W. C. Langston, Little Rock.

ADDRESS OF WELCOME—Mrs. T. Duell Brown, Little Rock.

INTRODUCTION OF THE STATE PRESIDENT—Mrs. Mason G. Lawson, Little Rock.

RESPONSE TO THE ADDRESS OF WELCOME—Mrs. P. W. Lutterloh, Jonesboro.

INTRODUCTION OF SPECIAL GUESTS — Mrs. Joseph W. Kelso, President, Woman's Auxiliary to the Southern Medical Association; Mrs. Luther H. Kice, President, Woman's Auxiliary to the American Medical Association; Mrs. Neil Woodward, President, Woman's Auxiliary to the Oklahoma State Medical Association.

REPORT OF THE OFFICERS.

REPORT OF THE COMMITTEE CHAIRMEN.

REPORT OF THE FIFTH ANNUAL CONFERENCE OF THE WOMAN'S AUXILIARY TO THE AMERICAN MEDICAL ASSOCIATION—Mrs. Louis K. Hundley, Pine Bluff.

REPORT OF THE CONVENTION OF OF THE WOMAN'S AUXILIARY TO THE AMERICAN MEDICAL ASSOCIATION—Mrs. Joe Verser, Harrisburg.

REPORT OF THE MEETING OF THE WOMAN'S AUXILIARY TO THE SOUTHERN MEDICAL ASSOCIATION — Mrs. L. T. Evans, Batesville.

ANNOUNCEMENT OF SPECIAL COMMITTEES—Mrs. Carrol F. Shukers, Little Rock.

REPORT OF THE REGISTRATION COMMITTEE—Mrs. J. B. Crawford, Little Rock.

REPORT OF THE ENTERTAINMENT COM-



MITTEE—Mrs. W. B. Cooper, Jr., Little Rock.

### GENERAL SESSION

FRIDAY, APRIL 15, 1949

Hotel Marion

8:30 A. M.—PAST-PRESIDENT'S BREAKFAST — Chair-  
Mrs. B. A. Rhinehart, Little Rock.

9:30 A. M.—CALLING THE MEETING TO ORDER —  
Mrs. Mason G. Lawson, President, Little  
Rock.

INVOCATION—Mrs. N. W. Riegler, Sr.,  
Little Rock.

READING OF THE MINUTES.

ADDRESS—Dr. P. H. Lutterloh, President,  
Arkansas Medical Society.

ADDRESS — Chairman of the Advisory  
Board, Louis K. Hundley, M.D., Pine  
Bluff.

REPORT OF THE PRESIDENTS OF  
COUNTY AUXILIARIES.

REPORT OF THE REGISTRATION AND  
CREDENTIALS COMMITTEE—Mrs. J.  
B. Crawford, Little Rock.

ELECTION OF OFFICERS.

ANNOUNCEMENT OF THE ENTERTAIN-

MENT COMMITTEE — Mrs. W. G.  
Cooper, Jr., Little Rock.

### MEMORIAL SESSION

11:40 A. M.—JOINT SESSION WITH THE ARKANSAS  
MEDICAL SOCIETY — Robinson Audi-  
torium.

### LUNCHEON

1:00 P. M., Continental Room, Hotel Marion

TOASTMISTRESS—Mrs. Carroll Shukers, Little Rock.

INVOCATION—Mrs. Verdo T. Webb, Little Rock.

INTRODUCTION OF PAST PRESIDENTS.

INTRODUCTION OF STATE OFFICERS.

INTRODUCTION OF WIVES OF THE OFFICERS OF  
THE ARKANSAS MEDICAL SOCIETY.

INTRODUCTION OF THE POET LAUREATE — Mrs.  
George B. Fletcher, Hot Springs.

UNFINISHED BUSINESS.

REPORT OF THE COMMITTEE OF COURTESY RESO-  
LUTIONS.

INSTALLATION OF 1949-50 OFFICERS.

PRESENTATION OF THE GAVEL—Mrs. Mason G. Law-  
son.

ADDRESS OF INCOMING PRESIDENT—Mrs. Louis K.  
Hundley.

POST-CONVENTION BOARD MEETING—Mrs. Louis K.  
Hundley, presiding.

FRIDAY EVENING, APRIL 14

ANNUAL BANQUET SESSION.

DANCING.



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# The JOURNAL OF THE ARKANSAS MEDICAL SOCIETY

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FORT SMITH, ARKANSAS, APRIL, 1949

No. 11

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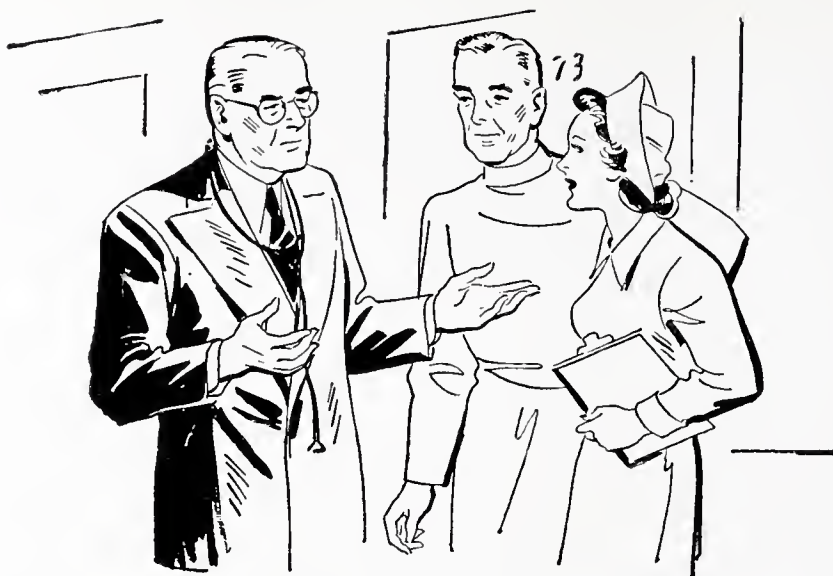
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# The JOURNAL

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### DIFFERENTIAL DIAGNOSIS OF JAUNDICE\*

FRANK G. KUMPURIS, M. D.  
Little Rock

For years, many contributions have been made toward the diagnosis of the causes of jaundice. With the infiltration of these new findings and their interpretations into the literature, followed by other articles of acceptance and condemnation of these, the practitioner has been centered in the confusion with the end result misinterpretation and more confusion. It is not my idea to write, in a short paper, a complete survey of the differential points of jaundice, but to present the subject of jaundice and the tests used in its differentiation as the writer visualizes it. This may serve to confuse others, but it is done with the hope that it will give a better understanding of the interplay of pathological physiology with the various diseases which result with jaundice. It has been stated by many authors that only through experience can one become adept in handling efficiently the causes of jaundice, and this statement is highly appreciated by me.

Patients who present jaundice have very varied clinical pictures, depending on the etiologic agent, and the duration of the process. Needless to say, one of the most important instruments for diagnosis is a complete present and past history. With the more recent advances in hepatitis, one must be even more careful of the past history, questioning patients about their activities and medical treatments for a period dating back six months, inoculations, and whether they have had any infusions or transfusions. After having completed the examination, one turns toward the laboratory for aid. In discussing the subject, I shall reverse the usual procedure of discussing the subject, and commence with the diagnostic aids, hoping that by so doing, the clinical picture will appear more clear.

Only in the earliest cases of obstruction can one hope to find a true picture of obstruction,

i. e., without any secondary hepatitis. And by virtue of the pathology which exists in hepatitis, it is not too frequently that one can have as a case a true hepatocellular disease state. However, listed below are the results one would expect to find if one could say that he had a true case of obstruction and another of hepatocellular jaundice. In this tabulation, I am listing the most accepted tests among all that have been presented.

Test	Obstruction	Hepatocellular
Plasma Cholesterol	Elevated	Normal or low
Alkaline Phosphatase	Over 10 Bodansky units	Up to 10 Bodansky units
Serum protein	Normal	Reduced—reversed a/g ratio
Thymol turbidity	Negative	Positive
Caphalin Cholesterol Flocc.	Negative	Positive
Excretion of hippuric acid	Normal	Decreased
Vitamin K prothrombin test	Prompt	Delayed or absent
Galactose tolerance	Normal	Excessive secretion galactose
Urobilinogenuria	Normal or low	Increased
Bile in stools	Absent	Present
Bromsulphalein test	Normal	Increase in blood

The diagnosis of the causes of jaundice would be greatly simplified if the above chart would always be true in a picture of obstruction or of hepatocellular jaundice. However, with obstruction and the resulting increase in biliary pressure, a varying amount of hepatitis ensues. Connor states that the severity of the process depends on three variable factors, (1) the degree of biliary tract obstruction, (2) the duration of the obstruction, and (3) the presence or absence of infection. If the damaging factors persist long enough, portal cirrhosis may eventually result. The clinical features are similar to those patients seen with hyperthrophic biliary cirrhosis and these may at times conceal the underlying cause of the cirrhosis.

In viewing the picture of hepatocellular jaundice, it would again be most fortunate if this type of jaundice would result with laboratory studies such as those listed above. However, a brief review of the anatomy of the lobule will clearly show how the obstructive features of hepatocellular jaundice are brought about.

Each lobule is an anatomic functional unit. It is a five or seven-sided polygonal prism consisting

\* Read before the Second Councilor District Medical Society, Batesville, March 8, 1948.



of a central vein, cords of hepatic cells which surround blood sinusoids which are lined with Kupffer cells, and which surround the bile capillaries. Interspersed among the lobules at their periphery is connective tissue known as Glisson's capsule. In this tissue, one finds the hepatic artery, portal vein, the bile duct, and the lymphatic duct. This periportal connective tissue starts at the portal of the liver where the portal vein, hepatic artery, hepatic bile ducts, lymphatic vessels and the nerves enter, and extends into the liver along the branches of the ducts and vessels mentioned. It is important to realize the position of Glisson's capsule for any edema or inflammatory process therein causes pain in the right upper quadrant which corresponds in magnitude to the amount of involvement, and may at times even resemble colic.

With the understanding of the anatomy of the normal lobule, one can easily understand how edema and swelling of the cells about the bile canaliculi can, and do, cause biliary obstruction in cases of infectious jaundice, hemolugous serum jaundice, chronic hepatitis, and toxic hepatitis, and may in any other form, if enough bile radicals are occluded. Cholangiitis, with secondary hepatitis, can give a picture of complete biliary obstruction, by virtue of occlusion of the biliary canaliculi.

It is because of these features of inconsistency in the so-called obstructive and hepatocellular jaundice cases that I feel a better understanding may be had by discussing the subject in reverse.

In testing the various functions of the liver, biliary tree, and products of the liver which pass through the biliary tree, one should know the mechanism which is being tested. A knowledge of the normal is necessary in order to understand the result of abnormal physiology. The various tests which have been devised to study liver function have all been based upon a certain physiological function of the liver. When this function is distorted by disease, the significance of the test becomes apparent. I shall not attempt to enumerate the various functions of the liver, but rather to discuss briefly the ones which are directly related to an accepted test, and the significance of any abnormality of this function as demonstrated by the test.

#### A. Galactose tolerance test.

Dextrose is the carbohydrate of choice of the liver cells. All other body cells can utilize levulose, but little if any galactose; hepatic cells can normally utilize galactose. When these forms of sugar are absorbed, the liver converts them into glycogen, this process being referred to as glycogenesis. This glycogen may, on demand, be

converted into dextrose, through the process of glycogenolysis. Thus it can be said that the liver manufactures dextrose from levulose and galactose. In hepatocellular disease, the ability of the liver to do this decreases, so that a larger than normal amount of a known dose of galactose is excreted by the urine, thus indicating the degree of impairment of this normal function.

#### B. Serum Proteins.

The function of the liver in the storage of proteins, its function in the synthesis of amino-acids, and the manufacture of proteins is a very important one. There are many evidences which support the ability of the liver to carry out the functions mentioned above, and any abnormality in these functions can be detected by the laboratory. The fact that proteins are stored in the liver is evident by the drop in the serum proteins in cases of hepatocellular damage. This drop is accompanied by the decrease in the albumin and an increase in the globulin fractions, with the result of a reverse in the a/g ratio. Of course, one must not forget that a low serum protein may be found in other disease states, such as nephrosis, severe alkalosis, and hypothyroidism. It should be mentioned that a correlation of low serum proteins in hepatic disease is in direct relation with the amount of damage, the lower the value the more severe the hepatitis. The ability of the liver to form amino-acids such as glycine is important and will be mentioned later under the test of detoxification of benzoic acid.

#### C. Cephalin Cholesterol Flocculation Test.

#### D. Thymol Turbidity Test.

These two tests are quite sensitive tests of liver disease, which have been found to be quite accurate, and significant of liver damage. The exact method or test of function of these tests is not definitely known, but it is assumed to be the reaction of these tests on the increase of the gamma globulin found in hepatocellular disease. Gray and Barron have found through the electrophoretic analysis of plasma proteins that in early liver damage the changes in the proteins is not uniform, as would be indicated by simpler tests. By such analysis they have found that the proteins are albumin, and alpha, beta, and gamma globulin. As the albumin fraction decreased, they noted an increase in the globulin fraction, especially in the gamma globulin. It is this part of the globulin which is thought to produce flocculation and turbidity in these tests.

#### E. Prothrombin and the Vitamin K test.

The liver is the site of origin of prothrombin or the anti-hemorrhagic factor of the blood. The liver also produces fibrinogen, the protein which plays a role in the clotting of blood. An impor-



tant factor in the formation of prothrombin is the presence of Vitamin K. Vitamin K is a fat-soluble vitamin, necessitating bile salts for its absorption. Therefore, if there is an obstruction whereby bile salts do not get into the intestinal tract, there is an elevation in the prothrombin time, due to a lack of prothrombin. However, in hepatocellular disease, even though there is adequate absorption of Vitamin K, there is an inability of the liver to form prothrombin, and again the prothrombin time is elevated. Therefore, by giving Vitamin K intravenously, one is able to reduce the prothrombin time to normal. This would indicate that the disease process is one of obstruction, and if not down to normal that a hepatocellular state is existent.

#### F. Plasma Cholesterol.

Cholesterol is a component of most of the cells of the body, and cholesterol crystals are frequently seen after internal hemorrhage. However, the appearance of cholesterol in the serum is in several forms, free and esterified. There is a balance of this make-up in the blood stream, this balance being thought to be a function of the liver in the synthesis of cholesterol esters. In cases of obstructive jaundice, the inability of the biliary liquid to pass results in a damming of the cholesterol which makes its appearance in the serum in quantities above normal. Likewise, because of the balance, there is a corresponding increase in cholesterol esters. In hepatocellular disease this is not apparent, but instead a normal or slightly lowered blood cholesterol accompanied by a more profound drop in the serum cholesterol esters.

#### G. Urobilinogen.

The liver forms some bilirubin. This formation occurs in the reticulo-endothelial cells of the liver, as well as those in the spleen lymphatics, bone marrow, and connective tissue. Bilirubin is formed from the hemoglobin and the destruction of the red blood cells. That which is formed outside of the liver is thought to have a globin radical attached to it. This may also be true of that formed within the liver cells, namely the Kupffer cells. However, as bile passes from the Kupffer cells through the polygonal cells it loses this globin radical. The physiological result of bilirubin and the changes which occur in obstruction and hepatocellular disease are of great significance to the differential diagnostician. Normally, the bilirubin is excreted into the intestine, where it undergoes reduction by bacteria to form urobilinogen. A part of this is excreted in the stool and is oxidized to urobilin. The remainder is reabsorbed as urobilinogen and excreted as such into the biliary tree again. However, in

cases of liver damage, excessive blood destruction, and in the very earliest stages of obstructive jaundice, the urobilinogen is not received by the liver, due to impairment of that organ, and it accumulates in the blood stream to be excreted by the kidneys. Thus, one sees a definite urobilinogenuria in hepatocellular jaundice, and an absence or slight amount in the urine in obstructive jaundice. In obstructive jaundice, the lack of bile, plus the undigested or partly digested fats and products of saponification, one finds clay colored stools, whereby in hepatocellular jaundice, there is a brownish color to the stool, if there is not an obstructive feature to the disease.

#### H. Excretion of hippuric acid.

The liver, by virtue of the reticulo-endothelial system, removes bacteria, foreign bodies, dyes, and foreign proteins from the blood stream. By conjugation, or by oxidation, reduction, methylation, and acetylation, toxic radicals are removed. Menthol is coupled with glycuronides in the urine. Indole, skatole, and phenol are conjugated with sulphuric acid, and excreted as the corresponding glycuronate. Benzoic acid is coupled with glycine to form hippuric acid, which is then excreted in the urine. The ability of the liver to detoxify benzoic acid has been utilized as a test of liver function. In hepatocellular jaundice, loss of this function results in a decrease in the output of hippuric acid.

#### I. Alkaline serum phosphatase.

Phosphatase, an enzyme, is principally made in the bone producing cells of the body. Some feel that the liver also has the ability to manufacture this enzyme. However, the liver does play a role in the excretion of the phosphatase, and maintaining a normal serum level of between 1-4 Bodansky units. It has been observed by various clinicians that in obstructive jaundice one finds an elevated serum alkaline phosphatase of over 10 Bodansky units, whereas in hepatocellular jaundice, although the level is increased above normal, it rarely exceeds 10 Bodansky units. Gutman and Hanger found the above true in 91 per cent of 69 proven cases of carcinomatous obstruction of the common duct, and in 76 per cent of 58 proven cases of obstruction secondary to stone in the common duct. Conversely, in only 14 per cent of 108 cases of infectious hepatitis were the values above 10 Bodansky units.

Having now reviewed the anatomy of the functional hepatic unit, and having considered the basis whereby the changes in functions of the liver can be measured, I believe one is now better equipped to consider the various clinical pictures of jaundice. With our above knowledge,



one can theoretically explain with a fairly high degree of accuracy the discrepancies which occur in the various diseases.

Whenever one considers the subject of jaundice, one should immediately pass through his mind that classification which he finds most suitable to the logic with which he approaches the subject. I have always regarded the classification as follows as being the simplest and most complete:

- A. Hepatocellular:
  - 1. Infectious jaundice.
  - 2. Homologous serum jaundice.
  - 3. Chronic hepatitis. (a) Lannaec's cirrhosis; (b) Hanot's cirrhosis.
  - 4. Jaundice due to toxins and systemic infections.
  - 5. Acute yellow atrophy of the liver.
  - 6. Weil's disease.
  - 7. Jaundice secondary to another disease state.
  - 8. Primary and metastatic carcinoma of the liver.
- B. Obstructive:
  - 1. Calculous. (a) Acute cholecystitis with jaundice; (b) common duct stone; (c) stricture of the common duct.
  - 2. Neoplastic. (a) Carcinoma of the pancreas, bile tract, or gall bladder.
- C. Hemolytic jaundice:
  - (a) Familial; (b) acquired.
- D. Jaundice of the newborn.
- A. Hepatocellular:
  - 1. Infectious jaundice:

Infectious or catarrhal jaundice is perhaps the most common type of jaundice seen today, appearing most frequently between the months of September and March. The etiological agent is a filtrable virus, which by nature of its name is infectious, being transmitted from the upper respiratory system and through the stools, being prevalent under poor sanitary conditions, and following outbreaks of intestinal disease. Hartfall has observed four different forms of the disease on the basis of symptoms: (1) Gastro-intestinal type (53 per cent) in which the onset is insidious, with anorexia followed by nausea and vomiting, weakness, fever, aches and pains and jaundice; (2) febrile type, with an abrupt onset of fever; (3) ambulatory icteric type (10 per cent) in which there were not any noticeable symptoms, the jaundice being noticed by a colleague; (4) hepatitis without icterus (7 per cent), in which the patient suffered with epigastric or right upper quadrant tenderness, anorexia, nausea, and aches and pains, with or without fever. In the majority of these cases, the liver was found to be

enlarged, and in about 40 per cent there was an accompanying enlargement of the spleen. The pathology which accompanies this type of jaundice is interesting and should be understood in order that a better concept for the disturbance of the various tests may be understood. There is considerable distortion of the hepatic lobules, with the columns of liver cells being broken up. These cells are separated and show decisive evidence of necrosis and autolysis. Many of these cells are bloated, and when the process is early the edematous or bloating stage may be sufficient to obstruct the small bile capillaries, thus changing the picture of an etiological hepatocellular type of disease to that of an obstructive hepatocellular disease. The edema of the cells is evident by the rarefaction of the cytoplasm and the swollen nucleoli. There is general enlargement of the cells in the sinusoids, giving the liver an unusually cellular appearance. As the disease state progresses there is a regeneration of liver cells, and in most cases there is complete restoration of normal liver. However, some cases can progress to sub-acute necrosis, nodular hyperplasia, or cirrhosis. The disease is most frequently seen in the third through the sixth decades of life, although it may occur in the young and aged. Mortality rates vary from 0.13 to 0.44 per cent.

It becomes apparent, therefore, that no single laboratory test will be of definite diagnostic significance in the diagnosis of this entity by virtue of the pathology which it causes. It is important to remember that the disease is usually accompanied by a leukopenia or a normal white count, with or without a lymphosis, which may serve to differentiate it from Weil's disease. This is a hepatocellular disease in which one would expect those tests indicative of this type to prevail. However, the obstructive element which may occur in the small canaliculi may be sufficient to change the laboratory results to indicate obstruction, thereby confusing the diagnostician and leading to surgical exploration.

## 2. Homologous serum jaundice:

A syndrome of hepatitis closely resembling, and perhaps being the same as the infectious type of jaundice, is that which follows the injection of various convalescent sera, yellow fever vaccine, plasma transfusions, blood transfusions, or various parenteral therapy. It may follow the use of venipuncture technics used by various groups in which the syringes are not properly sterilized between successive punctures. The onset can usually be dated from the time of one of the above occurring, at a time of 60-120 days post-therapy. The etiological agent, like that of



infectious jaundice, is a filtrable virus. However, it is not transmitted from man to man, it does not make its appearance in the stool of man, and the incubation period of the disease is longer. The clinical picture is very much like that of infectious jaundice, with the exception of fever in the pre-icteric phase, which as a rule seldom is higher than 100, whereas in catarrhal jaundice the temperature may be 102-104. Skin eruptions, more typical of an allergic disease, are seen in homologous serum jaundice in the form of urticaria, erythema, and arthralgia. The pathological picture is indistinguishable from that of infectious jaundice, therefore enabling this hepatocellular type of disease to be able to have a definite obstructive picture in the early stages of the disease.

3. Chronic hepatitis or cirrhosis:

a. Laennec's cirrhosis:

Cirrhosis is that entity in which the following three changes occur within the liver, disturbing the functions such that the picture known as cirrhosis is completed: (a) Proliferation of connective tissue, (b) degeneration and death of hepatic cells, (c) regeneration of hepatic cells. There have been many names attached to this disease, but the most common are alcoholic, atrophic, or portal, or by its classical name of Laennec's cirrhosis. The etiology of the disease is not definitely known, although many theories have been advanced and proven in the experimental animal. Alcohol has long been thought to be the only agent. However important, dietary deficiencies, especially in cystine, choline, and methionine have caused cirrhosis of the liver. Others feel that a deficiency in Vitamin B is an etiological agent. Rats fed on a high fat diet and then given alcohol will show a cirrhosis.

The symptom picture of cirrhosis is not difficult in its chronic state, although in its early stage it may be. The usual early symptoms are those of fullness of the abdomen, or a fullness after eating, followed by dyspepsia. Abdominal pain localized in the right upper quadrant or generalized may be an early symptom. However, as the disease state progresses, one may find that the patient has been jaundiced several times, with or without a palpable liver, the presence of ascites. The sequel of intra-abdominal increase of pressure, and the increase of portal hypertension make evident the hemorrhoids, increase in prominence of the abdominal wall veins, paraumbilical veins, the appearance of spider hemangiomas and of esophageal varices, which may be the cause of hematemesis. The laboratory picture of a cirrhosis may be a typical one showing evidence of hepatocellular

disease and again by virtue of the strangulating effect of the increase in the connective tissue and the decrease or death of the hepatic cells, one may easily find positive tests which show obstruction. However, cirrhosis is the type of chronic hepatitis which is most likely to show a truer laboratory picture of hepatocellular disease.

b. Hypertrophic biliary cirrhosis:

This type of cirrhosis differs from portal in that the increase in connective tissue is moderate in the perlobular area, but reaches extensively between the liver cords, thus occluding the biliary canaliculi and causing jaundice as its early symptom, which is usually persistent, and not accompanied by ascites. In this type of cirrhosis, the spleen is usually enlarged and the chronic finding is pruritis. Liver function tests are usually good, and one finds hyperbilirubinemia and urobilinogenuria. The cholesterol is usually increased and the albumin is normal in contradistinction to the portal type of cirrhosis.

4. Jaundice due to toxins and systemic infections:

The clinical picture of jaundice following the ingestion of toxic substances of the systemic intoxications of snake bite, etc., is indistinguishable from that of infectious jaundice or serum jaundice. It is only through the medium of a complete history from the patient in regards to exposure to hepato-toxic fumes, gases or drugs, previous therapy, insect bites, etc., that one may consider the etiology of this phase of jaundice. There are three modes by which toxic chemicals may cause jaundice: (1) Direct injury to liver parenchyma, (2) primary hemolysis with secondary injury to the liver by the products of hemolysis, (3) allergic sensitivity and hypersusceptibility in human beings. Ottenberg and Spiegel have made a report of the various chemicals, classified by their method of damage mentioned above.

Direct Injury to Liver	Hemolysis	Allergy
Gold	Phenylhydrazine	Arsphenamines
Ether	Sulphonamides	Cincophens
Chloroform	Transfusion with incompatible blood	Liver extract
Iodoform	Picric acid	Bismuth
Avertin	Hemolytic sera	Mercury
Arsenic	Snake poisons	Sulphonamides
Carbon tetrachloride		
Nitrobenzene		
Phosphorus		
Burns		
Carbon disulphide		
Trinitrotoluene		
Manganese		
Copper		
Dinitrophenol		

Certain systemic infections may be compli-



cated by the presence of jaundice. It is well to be familiar with these, so one may have a complete understanding of both the systemic infection and the causes of jaundice. (a) Syphilis. In congenital lues the liver is involved in about 50 per cent of the fatal cases, and result in a diffuse type of hepatitis. In secondary lues, one may find a picture of jaundice appearing several months after the primary chancre which is indistinguishable from the infectious type of jaundice. The pathology of the liver is thought to be paranchymatous degeneration. An important feature is the ability of the Wasserman to change positive to negative during the course of the hepatitis. The manifestations of tertiary syphilis may be divided into two groups: (1) Those in which there is gumma or gummatous infiltration of the liver, and (2) those in which there is a healing of the gummata. As is true in syphilis, the manifestations of the disease may resemble any type of biliary pathological picture. (b) Malaria. In the blackwater fever type of malaria, one finds jaundice. This is due to an overwhelming release of bilirubin from the sudden destruction of a large per cent of the red blood cells. (c) Pneumonia of the lobar type and pneumococcic peritonitis. The mechanism of jaundice has been explained on the following basis: (1) Liver cell damage from anoxemia, (2) hemolysis in the consolidated lung, (3) direct effect of pneumococcic toxins on the red blood cells, (4) disintegration of red blood cells owing to hemostasis. Jaundice associated with the picture of lobar pneumonia is usually accompanied by pneumococcic bacteremia. (d) Septicemias, in which the etiological agent is either the anaerobic staphylococci or *B. Welchii*, may be accompanied by jaundice. The picture is thought to be secondary to a process which resembles hemolytic anemia. (3) Infectious mononucleosis may be accompanied by jaundice and when present makes the differential diagnosis difficult, in view of the fact that Finks and Blumberg found that a definite lymphadenopathy was present in 81 per cent of the cases of infectious jaundice seen by them. The concepts of hepatomegaly are contributed to a hepatitis associated with, and probably caused by, the inflammatory process of the infectious mononucleosis. This hepatitis was demonstrated by Kilham and Steigman as being an acute focal hepatitis, proven by biopsy in one case. (f) Yellow fever is a disease whose etiology is a virus, transmitted by several species of mosquitoes. The disease is divided into two phases, in which the early phase is the acute one manifested by extreme prostration, fever, headache, and backache, and with the appearance of a albuminaria

on the second or third day. The second phase is the stage of stasis in which the temperature drops to normal, jaundice appears, which may be accompanied by hemorrhagic changes and severe renal damage. Leukopenia is the usual picture. During the convalescent period the presence of antibodies may be used to positively diagnose the condition.

#### 5. Acute yellow atrophy of the liver:

This syndrome of symptoms is not considered to be a separate clinical entity, but to get the particular manifestation of certain diseases, such as abscesses, gangrene, erysipelas, peritonitis, pneumonia, diphtheria, osteomyelitis, and typhus. It may follow as a sepeule of infectious hepatitis or serum jaundice. It may appear secondary to injury caused by chloroform, carbon tetrachloride, and carbon bisulfide, or toxic preparations, such as cincofen and atophan.

The pathology associated with the entity is interesting. The spleen is enlarged, and the bone marrow appears hyperplastic, edema of the gastro-intestinal tract being evident in both the small and large bowel. The brain is associated with two lesions: acute nonspecific degeneration of the ganglion cells, and mild meningoencephalitis. Hemorrhages have been found in the lungs, intestine, heart, and kidneys. Liver damage is exhibited by destruction of the liver parenchyma sufficiently to impair the function of the liver, and result in ascites.

The clinical picture of acute yellow atrophy is usually in three stages. Lucke feels that the (1) pre-icteric stage lasts generally about seven days, and has symptoms which are indistinguishable from those of infectious jaundice. The (2) intermediate stage lasts about twenty-six days and usually progresses as an infectious hepatitis would, only to be initiated abruptly into the (3) final stage which is characterized by the development of cerebral manifestations and persistent vomiting and ascites. Jaundice may appear in either the second or third stage. Other manifestations include deep breathing, a musty amine odor to the breath, intense jaundice with a large tender liver. The liver may dramatically decrease in size until it can no longer be felt. Hemorrhage in the later stage may be seen in the form of ecchymosis, hematemesis, epistaxis, melena, or hematuria. The hemorrhagic tendencies are secondary to the failure of liver function in the formation of fibrinogen and deficiency of prothrombin. There is a fall in the blood cholesterol and especially in the serum cholesterol esters with the increase in bilirubinemia.

#### 6. Weil's Disease:

Leptospirosis is undoubtedly more common in



this country than has been thought. It is more prevalent in the summer months, being seen among those who work in sewers, handle fish, garbage collectors, meat slaughterers, miners, tunnel diggers, and sugar cane and rice field workers. The disease is usually divided into three phases: (1) The septicemic phase, lasting about two to nine days, (2) the icteric phase, lasting seven to ten days, and the (3) convalescent phase. During the septicemic stage the spirochaetes are circulating in the blood stream, and result in severe headaches, chills and severe prostration. Muscle aches in the legs, back, and the extraocular muscles is prominent. Loss of appetite, nausea, and vomiting, associated with abdominal pain may lead one to think that the case is an acute abdomen. High fever and a leukocytosis is prevalent from the onset. The urine may show mere traces of albumin or the laboratory picture of an acute glomerulonephritis with an elevation of the urea. As the temperature drops, there is an appearance of jaundice accompanied by a gradual subsidence of the gastro-intestinal symptoms. Renal failure in varying degrees is now apparent, and one soon realizes that the patient's condition is not better, but worse. With the liver damage, one may have varying manifestations of bleeding. In the fatal cases, death occurs between the ninth and the sixteenth days. The convalescent period is not dramatic, but shows a period of gradual disappearance of the jaundice, and the urinary picture. The diagnosis of Weil's disease may be made in the first week of the disease, if it is suspected, by a dark field examination of the blood demonstrating the leptospira icterohemorrhagica. During the second week, intraperitoneal injection of the urine into the peritoneum of guinea pigs will result with the presence of the leptospira in the lungs, liver, and kidneys of the pig. During the third week, agglutination tests may be used for the purpose of diagnosis.

7. Jaundice secondary to another disease state:

It is well to remember that jaundice may be associated with the following diseases: Actinomycosis, leukemia, leishmaniasis, histoplasmosis, cyst, amoebic abscess of the liver, and congestive heart failure pancreatitis, thyrotoxicosis, and peptic ulcer.

8. Primary and metastatic carcinoma of the liver:

Primary and metastatic carcinoma of the liver is usually thought to occur in three forms: (1) Nodular form, in which there may be many nodules of varying microscopic sizes which exert little or no compression on the surrounding liver

tissue; (2) the massive form in which the tumor seems to involve the entire lobe; (3) the diffuse form in which there are many very small nodules, often necessitating microscopic examination for diagnosis. Most pathologists feel that cirrhosis of the liver predisposes to carcinoma of the hepatic cell type, and may accompany, or follow, the bile duct type.

The usual symptoms which accompany this entity are not constant or diagnostic. They are those which are common in cirrhosis, namely: weakness, jaundice which is usually mild and persistent, pain of a mild or severe character in the right upper quadrant, or upper abdomen, edema of the legs, ascites, and anemi. Symmers has listed several criteria which may aid one in the diagnosis of primary carcinoma: (a) presence of a palpable massive solitary growth in the right lobe of the liver in a patient over thirty-five years of age, (b) the inability to determine a primary growth in any other part of the body, (c) jaundice of a mild grade, (d) ascites, (e) a low degree of unexplainable fever. Clinically, the disease pursues a rapid course and death occurs within three or four months. A very definitely helpful diagnostic aid when such a disease is suspected in a needle biopsy of the liver. The ascetic fluid in these cases may differ from that of cirrhosis, by being hemorrhagic. Jaundice may also be caused by secondary metastatic lesions from other parts of the body. The liver, being the vascular organ that it is, represents a disposal which is contributed by all of the organs, thereby being the most common organ in which neoplastic cells may lodge. Lesions of the breast, lungs, ovaries, kidneys, and testes metastasize to the liver as well as those of the gastro-intestinal tract. These metastases will cause symptoms in the liver, depending upon the amount of obstruction which they will bring about, resembling infectious jaundice, cholangites, biliary obstructions, and cirrhosis. Again needle biopsy of the liver, or peritoneoscopy with biopsy, is of great value in establishing the diagnosis.

After covering very briefly the medical aspects of jaundice, one realizes how important the history and physical examination is, and how at times the laboratory results are of such poor diagnostic aid. However, to continue the discussion of the differential diagnosis, one must consider the obstructive aspects of jaundice. As outlined in the classification, the first to be considered will be the calculous types of obstruction.

B. Obstructive:

1. Acute cholecystitis with jaundice:

Jaundice associated with acute cholecystitis is



found more frequently than jaundice due to common duct stone. The object of this paper is not to discuss the etiology and the course of acute cholecystitis *per se*, but to consider acute cholecystitis as a cause of jaundice. Bacteria may gain access to the gall bladder by way of the bile, through the lymphatics, or through the blood stream. This inflammatory process may result in a concomitant hepatitis, pancreatitis, or cholangitis, with the resulting appearance of jaundice. The most common, and some authors feel that invariably the etiological obstruction of acute cholecystitis, is obstruction of the cystic duct by a calculous or some thick tarry bile. The clinical picture of acute cholecystitis is such that even with a mild jaundice, one is not taxed too greatly in the differential diagnosis.

The typical pain, either colicky or sharp in character, in the epigastrium or the right upper quadrant, radiating usually to the right and posteriorly and up to the sub-scapular regions, associated with nausea and vomiting, general malaise, low grade to moderate fever, and a mild leukocytosis is fairly diagnostic. This accompanied by a past history of intolerance to fatty foods as signified by belching and bloating, and possibly a dull upper right quadrant ache is very significant of cholecystitis. One should stress the fact that the greater the septic course of the disease, perhaps the greater the degree of cholangitis and hepatitis. It is important to realize the significance of liver damage which occurs in these cases, for if operation is not carried out early in the disease, I feel that after the jaundice has subsided, one should make a careful survey to evaluate the amount of residual damage, and postpone surgery on the patient until the greatest and safest amount of liver recovery has been made.

## 2. Common duct stone:

According to Snell, the person whose former cholecystogram has shown multiple stones, has a 13 to 20 per cent chance of having calculi in the common duct. With simple cholesterol stones or a roentgenologic diagnosis of a nonfunctioning gall bladder the probability of stones in the duct is considerably less. In 60 per cent of the cases of obstruction of the common duct, the stone is found in the terminal portion of the duct. A calculous may completely occlude the duct, partially obstruct the lumen so that the bile can run past it into the duodenum, or be floating in the common duct, causing ball-valve action. A stone may at first be firmly implanted, causing a complete obstruction of the duct, but as the back pressure increases, the duct will dilate and

the inflammatory reaction about the duct touching the stone will soften, causing the stone to become free, or partially free.

The classic symptoms associated with common duct stone are biliary colic, jaundice, and chills and fever. When all together, and associated with a cholecystogram concurrent with stones or in a period following cholecystectomy these symptoms are sufficient for a presumptive diagnosis of common duct stone. Walters and Snell estimated that in about 25 per cent of their cases there was an absence of pain or pain of such low intensity that it could not be considered colic. Pain characteristically is located in the gall bladder region, but it has been observed to be epigastric, precordial, in the left upper quadrant, or even in the lumbar regions of the body.

Because of the nature of the disease, one may readily understand how the liver becomes secondarily involved by the resulting increase in biliary pressure. It is in the obstructive lesions of the lower biliary tract that one sees the obstructive biliary cirrhosis of varying degree. Thus it becomes apparent that the various diagnostic tests will be of value only in the early part of the disease, since the hepatocellular factor will come into play as the change in liver pathology occurs. Because of this, Naunyn, as early as 1896, gave these criteria as indication of stone in the common duct causing obstruction:

1. The continuous or occasional presence of bile in the feces.
2. Distinct variations in the intensity of jaundice.
3. Normal size, or slight enlargement of the liver.
4. Absence of enlargement of the gall bladder.
5. Enlargement of the spleen.
6. Absence of ascites.
7. Presence of febrile disturbance.
8. Duration of the jaundice for more than a year.

Walters and Snell stress the importance of these factors in common duct stone, especially in those cases where there is little or no pain, and the question of malignancy of the lower biliary tract is a question.

The icterus index may rise up to 100, but seldom exceeds this figure, and the serum bilirubin is significant if taken daily, in that it fluctuates with the function of the stone in the obstruction. A flat plate of the abdomen may be of diagnostic importance in that it may demonstrate a stone in the region of the common duct.



After the diagnosis has been established, one may readily examine the common duct at surgery. However, at the time of surgery, one should not be satisfied with the presence of stones in the gall bladder as satisfying the symptoms of the patient. Zollinger lists the following criteria as indications for exploring the common duct:

1. Suggestion of stone by palpitation of the common duct.
2. A dilated or thickened common duct.
3. Dilated cystic duct.
4. Thickening of the head of the pancreas.
5. The presence of small stones in the gall bladder and the cystic duct.
6. Contracted or thickened gall bladder.

After the common duct has been explored, one should make use of a t-tube, inserting this in the opening through which the exploration was carried out. After the necessary time has elapsed, and one is satisfied that there is no longer obstruction of the duct present and the duct has returned to its normal size, one should carry out the prophylactic procedure of examining the common duct by a choledochogram. Walters and Snell report that in a small number of cases, they have been able to demonstrate stones in the common duct, which they were unable to feel or find at exploration, and through this medium can advise the patient of the residual of their surgery.

### 3. Stricture of the common duct:

In discussing the subject of jaundice, one should mention all the various aspects of the etiology, but in trying to limit the amount of discussion in this paper, I shall only mention the fact that there are congenital anomalies which are found in the newborn which will result in jaundice secondary to common duct obstruction such as atresia and blind terminal ducts.

We are more interested in the appearance of post-operative stricture of the common duct. Walters describes three types of symptom complex, the difference depending chiefly in the rapidity in which the common duct is occluded. In the first type, the jaundice appears immediately post-operatively, gradually deepens and finally becomes constant. In such cases, it may be inferred that the common duct has been sectioned and ligated. In the second type, there is a prolonged post-operative biliary drainage with the intermittent jaundice associated with an ascending biliary infection. The degree of patency determines the amount of jaundice that

will be present. In the third type, the jaundice appears after a period of six months to three years, and may or may not be accompanied by colic. Eventually, these cases will become constant and maintain their jaundiced state. These cases are the result of an injury to the common duct, without interruption of the continuity of the flow, and the time factor is necessary for the stricture of the cicatricial tissue to result in partial to complete obstruction.

Once the stricture is complete, the patients present the typical picture of common duct obstruction, i. e., colic, chills, fever, intermittent or constant jaundice. Since the liver suffers over a prolonged period of time in such cases, there is evidence of liver damage by enlargement with associated enlargement of the spleen, presence of collateral circulation as evidenced by dilated veins, and ascites, with the accompanying picture of the liver being that of portal cirrhosis.

#### a. Neoplastic:

##### 1. Carcinoma of the pancreas:

Carcinoma involves the head of the pancreas about three times more frequently than the body and tail. By the location, the symptomatology of malignancy of the head versus the remainder of the gland varies. Because of the secondary involvement of the neighboring structures, either by invasion or by pressure, the malignancies of the head are more prone to be diagnosed at a time when surgery can offer the most. Likewise, because of the rather free anatomical location of the body and tail, these areas are more amenable to surgery as far as surgical technic is concerned, but produce symptoms so late that operability is not as great.

Tumors of the head of the pancreas by their action constitute the various signs, symptoms and physical findings by which they may be diagnosed. They cause pain, by involvement of the nerve sheaths, blockage of the main pancreatic duct, rapid dilation of the gall bladder, and the bile ducts at the time of biliary obstruction, and by pressure obstruction, either in the small bowel, or neighboring stomach. The pain may be of various character. It may be boring or steady, and located in the epigastrium, and sometimes radiating to the back. It may be colicky, and located in the upper right quadrant, not unlike gallstone colic, or it may be paroxysmal and radiating about the umbilicus. In varying number of cases of carcinoma of the pancreas there is no pain, and the figures on this vary from 15-25 per cent. Lesions of the body and tail, by virtue of their location, may have pain, but this



is late in their course, after involvement of the nerves, and metastases to the spleen or through the splenic vein to the liver is evident.

The next most characteristic sign of this entity is the rapidity with which patients lose weight. The average duration of symptoms in Ransom's cases were less than six months, and weight loss was evident during the first two months in amounts varying between 30 and 40 pounds. The appearance of jaundice in these cases vary, some having jaundice before the pain occurs, others having pain for varying periods before jaundice, and still others having painless jaundice. There is loss of appetite, weakness, nausea and vomiting in about 50 per cent of the cases.

On physical examination, one may be able to palpate the gall bladder in about 40 to 50 per cent of the cases. Applying Courvoisier's law to this, one has a very definitely important finding. The liver may be enlarged, and in about 30 per cent of the cases one may be able to feel a tumor, this being more apparent in the body and tail. Depending on the amount and duration of the obstruction, one may or may not be benefited by the laboratory methods in the differential diagnosis, and it may be at exploration that one suddenly becomes aware of the pathology. Whipple has suggested the use of duodenal lavage, and fluoroscopic check of the position of the tube as an aid in the differential diagnosis. The absence of pancreatic enzymes and of bile are significant findings, whereas the absence of enzymes in the presence of bile is thought to be a differential point between carcinoma of the head of the pancreas and ampullary carcinoma. At the same time, barium studies of the duodenum in the presence of pancreatic carcinoma may show a defect in the normal course of the duodenum or a defect in the stomach by outside pressure, whereas in carcinoma of the ampulla of Vater, one may find an ulcerative crater. If one is able to make a laboratory study of these patients in the early course of their disease, before much liver damage has occurred, those procedures which are indicative of obstruction are of great help in suggesting exploration for proving the diagnosis and treatment. With the increase in popularity of the Whipple operation, surgeons should now be much more anxious to try to diagnose these cases as soon as possible and try to relieve the patient of this rapidly growing tumor. Unfortunately, by virtue of the location and the delayed symptoms of tumors of the body and tail, these lesions are not found as early as one would like for good results.

## 2. Carcinoma of the extraphepatic bile ducts:

The malignancies or even rare benign tumors which occur here may be of two types—the hard, fibrotic type which usually do not exceed one centimeter in diameter, and the polypoid type, which, although small, may function as a ball valve type of stone. The symptoms produced by these malignancies vary as to the type, size, and location. If they are found high in the biliary tract they may cause signs of obstruction and evident jaundice early, whereas if they are lower there is a prolongation of the period before jaundice appears. Jaundice is almost always present sometime during the disease, and is usually severe. These patients may present the usual signs of biliary tract obstruction, of nausea, and chills and fever, with a varying amount of pain, the pain being of the same distribution as that seen in common duct stone. These patients show an early tendency towards loss of weight, and frequently this is accompanied by their only symptom, dyspepsia, for a variable period before any other signs appear. The laboratory picture again may be confused if the liver damage is sufficient to alter normal hepatic function, but in the early stages of the process, obstructive laboratory results are definite aids in directing the surgeon to seek the cause of the obstruction through surgical exploration.

## 3. Carcinoma of the Ampulla of Vater:

There are pathologically two types of malignancies which can occur in this area, namely, papillary and ulcerative carcinomata. The papillary type, by virtue of its mobility, may cause alternating jaundice, whereas the ulcerative type is usually persistent, except where there is sloughing of the carcinomatous growth, thus relieving the biliary obstruction. In about half the cases there is pain, which may precede the jaundice. The remainder may have a vague pain or feeling of bloating in the abdomen, or no pain at all at the onset. These patients are characteristically different from other jaundice patients in that they are in apparently good health, in spite of their jaundice, and in the early case, the laboratory results point to an obstructive type of jaundice. This is due to the nature of the malignancies, in that they extend by infiltration to the neighboring tissues. In 24 of Sharpe and Comfort's 40 cases there was abdominal pain, and at surgery, 11 of these were found to have associated common duct stones. They stress the point that the pain in these cases may be either colicky, or mild and continuous, usually in the epigastrium or midabdomen.

It has been stressed that diarrhea associated



with jaundice is a finding suggestive of ampullary carcinoma. The diarrhea is thought to be on the basis of obstruction of the pancreatic ducts, with resulting loss of the juices into the small bowel, giving many small and possibly fatty stools. Tarry stools in the presence of jaundice may be on the basis of ampullary malignancy because of the tendency of the ulcerative lesion to bleed.

It is in this type of case that Whipple suggests that duodenal intubation may be of very definite diagnostic aid. The presence of blood, the absence of pancreatic enzymes, and bile, and the demonstration of an ulcer crater by X-ray are very indicative of ampullary disease. It behooves one to try to diagnose such a condition, for the results of surgery are very dramatic and curative. Occasionally the clinical picture of carcinoma of the Ampulla of Vater is complicated by obstructive cirrhosis secondary to obstruction of the common bile duct, and one is taxed clinically to distinguish between medical and surgical disease. It is for this reason that Whipple emphasized the importance of duodenal intubation.

#### 4. Carcinoma of the gall bladder:

Mention will be made of carcinoma of the gall bladder, to include it in the differentiation of the causes of jaundice. The commonest error in diagnosis of this disease is to attribute the symptoms to cholelithiasis, and this, according to Walters and Snall, is an excusable error, which is also fortunate for the patient, since cases may have as symptoms right upper quadrant pain, and any symptoms which are associated with the metastasis.

#### C. Hemolytic Jaundice:

This entity may be familial or acquired, most frequently being familial whereby an entire family may have the disease, even though it is quiescent in the majority. This disease is found in two stages, the quiescent and the crisis. During the quiescent period, one may have no symptoms, but may present a slight icteric tinge to his tissues, and by testing the hemolysis of the blood find an increase in the fragility. However, in the crisis, there is a picture of jaundice with severe anemia, as a result of the hemolysis of the red blood cells. During this period there is an absence of bradychardia itching and bleeding tendency as seen in obstructive jaundice. The spleen is usually enlarged and tender, but in spite of the high serum bilirubin there is no bilirubin in the urine. About 60 per cent of these cases have an associated cholelithiasis, and many cases of hemolytic jaundice have instead of splenectomy, a cholecystectomy.

D. Jaundice of the newborn is excluded by the author from this study as was congenital malformations of the common duct.

In speaking of jaundice one should not forget to place emphasis on the use of needle biopsy as an aid in the differential diagnosis. The procedure is one that can be done safely; however, one should use judgment in the selection of cases, the one criteria which is necessary is a normal prothrombin time. While the prothrombin time can be brought to normal by the use of intravenous Vitamin K, it is not advised in cases of hepatitis in which liver damage is such that there is danger of bleeding for an uncontrolled prothrombin time. Various techniques of needle biopsy have been used; perhaps the safest and most used technique is that of the anterior approach, utilizing the enlarged portion of the liver below the costal margin. In this technique the patient is required to hold his breath while the biopsy is being done, thus limiting the amount of trauma to the liver.

Needle biopsy may be a great aid in following the course of a case where one feels that the future of the patient's health is dependent on the advice from the physician. One never knows which of the infectious jaundice cases will eventually lead to cirrhosis, nor does one know which of the livers, in which there is a fatty infiltration, will eventually clear up, or lead to cirrhosis. The opportunity of having an aid which will diagnose malignancy of the liver without exploration is an important feature of this procedure.

### Summary

1. Because the magnitude of the subject of jaundice is so great, a relatively short comprehensive paper has been written, trying to correlate the laboratory findings on a pathological-physiological basis, so that a better understanding of the changes in jaundiced cases may be understood.
2. By virtue of the differential diagnosis presented, it becomes apparent that the history is very important in jaundice.
3. A classification of jaundice is presented which is fairly comprehensive for consideration in a given patient, and not too complicated for memory.
4. In spite of the knowledge one has of the history of a given case, and the use of laboratory facilities, there will remain a number of cases in which diagnosis will be impossible, and one must turn to the surgeon for exploration. However, it behooves us all to try to achieve a greater and



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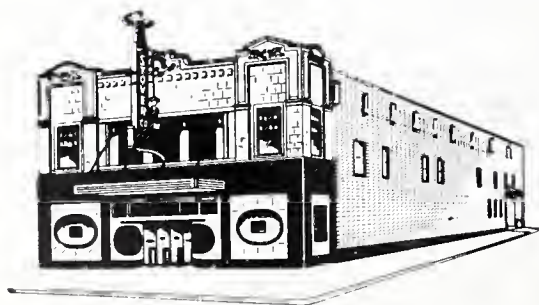
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clearer concept of the subject, and to strive for better technics whereby eventually the physician can be able to diagnose all types of jaundice efficiently.

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## CONGENITAL CHOANAL OCCLUSION

PAUL L. MAHONEY, M. D.  
Little Rock

An excellent dissertation on this subject by William Wesley Wilkerson, Jr., M. D., and Lee Farrar Cayce, M. D., of Nashville, Tennessee, was reprinted from the *Transactions American Academy of Ophthalmology and Otolaryngology*, January-February, 1948.

Previously, I have reported two patients with choanal atresia operated upon with good results.

Case 3. Mary Lou Brown, age five years. Mother noticed that this child could not breathe through her nose when born, swallowing was difficult, and the nasal outlets were irritated from continuous drainage. There was no history of cough or ear trouble.

Examination revealed a bilateral choanal atresia. Operation was indicated and recommended.

Under general anesthesia, following the removal of the adenoids and tonsils, the wall occluding the chanae was removed in the following manner. A vasoconstrictor solution was used to obtain better visibility and to reduce bleeding. A maxillary antrum punch was introduced into one nares, one finger was placed in the nasopharynx, the punch was forced through the occluding wall. Using a punch biting forcep a rather large opening was made. The same procedure was carried out for the other side. Following this, a large catheter was introduced through one nares and brought out through the other nares. A suture was placed through the ends of the catheter, and at frequent intervals the catheter was manipulated. Fortunately, the septum was never ulcerated. The catheter remained in situ for four weeks and was then removed.

Operation was performed September, 1948, and observation at regular intervals has shown the openings to be patent. This child will be kept under observation and more radical surgery will be instituted if necessary to produce permanent openings.

## PHYSICIAN-ARTISTS, BEWARE!

If you plan to exhibit at the Atlantic City Exhibition (American Medical Association, June 6-10, 1949), now is the time to write for entry blanks, rules, shipping labels, etc.

Haste is necessary because your entries must reach Atlantic City between April 15 and May 9.

For details, please write airmail to Francis H. Redewill, M. D., Secretary, American Physicians Art Association, Flood Building, San Francisco, California.



## PROGRAM OF THE AMERICAN MEDICAL ASSOCIATION FOR THE ADVANCEMENT OF MEDICINE AND PUBLIC HEALTH

### A Federal Department of Health

1. Creation of a Federal Department of Health of Cabinet status with a Secretary who is a Doctor of Medicine, and the coordination and integration of all Federal health activities under this Department, except for the military activities of the medical services of the armed forces.

### Medical Research

2. Promotion of medical research through a National Science Foundation with grants to private institutions which have facilities and personnel sufficient to carry on qualified research.

### Voluntary Insurance for the Care of the Indigent

3. Further development and wider coverage by voluntary hospital and medical care plans to meet the costs of illness, with extension as rapidly as possible into rural areas. Aid through the states to the indigent and medically indigent by the utilization of voluntary hospital and medical care plans with local administration and local determination of needs.

### Medical Care Authority with Consumer Representation

4. Establishment in each state of a medical care authority to receive and administer funds with proper representation of medical and consumer interest.

### New Facilities

5. Encouragement of prompt development of diagnostic facilities, health centers and hospital services, locally originated, for rural and other areas in which the need can be shown and with local administration and control as provided by the National Hospital Survey and Construction Act or by suitable private agencies.

### Public Health

6. Establishment of local public health units and services and incorporation in health centers and local public health units of such services as communicable disease control, vital statistics, environmental sanitation, control of venereal diseases, maternal and child hygiene and public health laboratory services. Remuneration of health officials commensurate with their responsibility.

### Mental Hygiene

7. The development of a program of mental hygiene with aid to mental hygiene clinics in suitable areas.

### Health Education

8. Health education programs administered through suitable state and local health and medical agencies to inform the people of the available facilities and of their own responsibilities in health care.

### Chronic Diseases and the Aged

9. Provision of facilities for care and rehabilitation of the aged and those with chronic disease and various other groups not covered by existing proposals.

### Veterans' Medical Care

10. Integration of veterans' medical care and hospital facilities with other medical care and hospital programs and with the maintenance of high standards of medical care, including care of the veteran in his own community by a physician of his own choice.

### Industrial Medicine

11. Greater emphasis on the program of industrial medicine, with increased safeguards against industrial hazards and prevention of accidents occurring on the highway, home and on the farm.

### Medical Education and Personnel

12. Adequate support with funds free from political control, domination and regulation of the medical, dental and nursing schools and other institutions necessary for the training of specialized personnel required in the provision and distribution of medical care.



THE JOURNAL  
OF THE  
ARKANSAS MEDICAL SOCIETY

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under direction of the Council

W. R. BROOKSHER, M. D., Editor  
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EDITORIAL

THE 1949 ANNUAL SESSION

The Seventy-third Annual Session of the Arkansas Medical Society will be held in Robinson Auditorium, Little Rock, April 14th, 15th and 16th, 1949. The detailed scientific program was published in the March issue of The Journal. As a reminder to the members, the following schedule of activities is published:

Thursday, April 14th

- 9:30 A. M. Scientific Session.
- 11:30 A. M. Awards of 50-year pins.
- 1:30 P. M. Scientific program (University of Arkansas School of Medicine).
- 4:00 P. M. First session, House of Delegates.
- 8:00 P. M. Open meeting, (public invited). Dr. Marjorie Shearon, speaker, with forum on health and medical care.

Friday, April 15th

- 9:30 A. M. Scientific session.
- 9:00 A. M. Section of eye, ear, nose and throat (Hotel Marion).
- 11:30 A. M. Memorial services.

- 2:00 P. M. Scientific session.
- 6:30 P. M. Social hour.
- Annual banquet session.
- Dance.
- (Hotel Marion)

Saturday, April 16th

- 9:30 A. M. Scientific session.
- 1:30 P. M. Second session, House of Delegates.

MEDICINE'S EDUCATIONAL PROGRAM

The campaign of education of the public in opposition to compulsory health insurance and seeking further enrollment in voluntary prepayment care plans has been inaugurated in Arkansas with the formation of an aggressive committee. The ten members of this committee, one from each councilor district, have made visits to the respective county societies explaining the program and seeking the support and assistance of every member of the Society. The program can succeed only in proportion as it obtains the full cooperation of members of the medical profession. At present, full effort is being given to organization of county units and the initiation of county society responsibility for the program. Intensive attention to the participation of individual members will follow. There should be no need to impress individual members of the Society with their duties in the campaign; the future of medicine, probably of form of government, in these United States, now rests with the zeal, earnestness and sacrifice of the individual doctor in the fight to oppose the social welfare state and its entering wedge, political medicine.

Members of the committee, who will endeavor to assist county units in every phase of the program are: Chas. R. Henry, Little Rock, Chairman; Joe Verser, Harrisburg; J. J. Monfort, Batesville; T. S. Van Duyn, Stuttgart; Henry W. Thomas, Dermott; J. B. Wharton, Jr., El Dorado; Fred Ferguson, Nashville; Joe W. Reid, Arkadelphia; George Steinkamp and Frank C. Kumpuris, Little Rock; Ulys Jackson, Harrison, and G. R. Siegel, Clarksville. Mrs. Mason G. Lawson, President, Little Rock, and Mrs. L. K. Hundley, President-Elect, Pine Bluff, represent the Auxiliary. D. A. Rhinehart, Little Rock, member of the Committee of 53 from the American Medical Association; R. B. Robins, Camden, member of the Coordinating Committee of the American Medical Association, and the Council of the Arkansas Medical Society are ex-officio members. The committee has been titled the Committee for the Extension of Medical Care.



## APRIL IS CANCER CONTROL MONTH

During April, the Arkansas Division, American Cancer Society, will conduct its annual campaign for contributions with which it will continue its program of education, service and research. Members are familiar with the active part this voluntary organization has held in the control of cancer nationally and within the state. The Arkansas State Cancer Commission, an agency formed to handle state and Federal funds as are made available for cancer control, is the result of activities of the Arkansas Division. Members are familiar with the Arkansas Division's program of service to the indigent cancer patient through the provision of diagnostic cancer clinics, transportation, domiciliary care and dressings, with the intensive lay educational program continuing throughout the year and with its sponsorship of professional education. Local units will seek the cooperation of county medical societies and of individual physicians to further the campaign. It well behooves members of the Society to give full and sincere support to this volunteer agency which is serving the people of Arkansas so well.

## A ONE-SENTENCE EDITORIAL

The individual practitioner will, within the immediate future, immortalize or abolish the private practice of medicine.

## RANDOM THOUGHTS OF THE SECRETARY

March 6th. The newly-formed committee to direct the Society's participation in the campaign of medicine against socialistic tendencies meets with full attendance and enthusiasm, naming the group and entering into earnest consideration of plans for enlisting the support of the individual physician.

March 8th. Tonight the Sebastian County Group listens intently to Bailey's excellent discussion on rheumatic heart disease but evidences less interest in Hunt and Secretary Wrightsman's presentation of the program to combat compulsory health insurance which perhaps proves that physicians are scientists first; economists and politicians, second—only currently, it seems that a temporary reversal is most urgent.

March 10th. Meeting Earle Hunt and Jimmy Kolb at Alma and motoring on to Siloam Springs where the Councilor looks over the hospital for registration in the American Medical Association registry, finding this just about the cleanest institution we have ever seen. Then to Bentonville where the Princess Cafe does well with fish and the Benton County Medical Society does the same with staff organization and organized medicine's plan to combat compulsory health insurance.

March 12th. Stimulated to better our own information on the subject as we discuss radiation therapy in female genital malignancy with the junior medical students, prior to which we visit the pediatric course where Paul Mahoney is holding forth in inimitable fashion.

March 13th. Lunch awaits as does all other activities pending the arrival of President-Elect Hundley of the Auxiliary, an ebullient girl child who is aptly named by Amis as the "3-H Girl"—Hell and High-water Hundley."

March 14th. Comes Lawson, Hundley and Henry of the touring Auxiliary, all set to enthuse the county units and if we were a county unit, as we are not, we would become most enthused, as we do.

March 20th. The committee meets to determine progress and outline further procedure, attendance being 70 per cent, still a good record for committees, but bringing none too happy reports of the response of the individual physician. Do they not read the papers?

## CORRESPONDENCE

March 7, 1949.

William R. Brooksher, M. D., Secretary  
Arkansas Medical Society,  
Fort Smith, Arkansas.

Dear Doctor Bili:

At this late date, I should like to express to the Arkansas Medical Society our appreciation for the attendance of Doctor Earle Hunt of Clarksville, Arkansas, at our Special Meeting of the House of Delegates.

As you probably know, Doctor Hunt came over to our meeting with Doctor Earl Woodson, Poteau, Oklahoma. Not only was he a very attentive observer, but he made a most substantial contribution to our meeting.

It is, indeed, refreshing to find physicians who are as interested in this problem as is Doctor Hunt.

Sincerely,  
Dick Graham, Executive Secretary  
Oklahoma State Medical Association.

February 23, 1949.

W. R. Brooksher, M. D., Secretary,  
Arkansas Medical Society,  
Fort Smith, Arkansas.

Dear Bill:

The Council of the Oklahoma State Medical Association appreciated the visit recently paid to them while in session by Councilor Earle Hunt, M. D., of the Arkansas Medical Society. It was a pleasure indeed for the members of the Council and the members of the House of Delegates to meet and to know Dr. Hunt. And furthermore, the House of Delegates appreciated the fact that Dr. Hunt served as substitute speaker because the guest speaker of the day, that is, the physician from the A.M.A., Chicago, was unable to be present.

All in all, I think the meeting of the Council and House of Delegates relative to the question at hand, the \$25 assessment, was a success and a number of ideas were exchanged between our members and Dr. Hunt, which I am sure will be of mutual help to both states.

Sincerely yours,  
Earl M. Woodson, M. D.,  
Councilor, Oklahoma 9th District.



# TUBERCULOSIS ABSTRACTS

## *A Review for Physicians*

ISSUED MONTHLY BY THE NATIONAL TUBERCULOSIS ASSOCIATION

### THE CURRENT STATUS OF ROUTINE CHEST X-RAYING IN GENERAL HOSPITALS OF THE UNITED STATES

**R**OUTINE chest X-rays of all hospital admissions is a "mass-survey" method of great importance—comparable in numbers of subjects available only to surveys of industries, communities or the armed services. While used primarily to find cases of tuberculosis, such surveys also uncover other lung, heart, and chest lesions and increase hospital efficiency.

The X-raying of general hospital admissions started in 1935 when the Wisconsin General Hospital and the University Hospital in Michigan began X-raying all admissions for a trial period. In 1938 no hospital was taking chest films of all patients but by 1943, 56 teaching hospitals professed to be taking routine chest X-rays and in 1945 eight per cent of general hospitals indicated that they were taking routine films.

#### The Current Survey

When information on the subject was sought in the spring of 1948, the data available from groups such as the National Tuberculosis Association, the Public Health Service, the American Hospital Association and the Veterans Administration were incomplete. It was decided, therefore, to proceed with an independent survey which, even if incomplete, might show trends and supplement the information already at hand.

It seemed wisest to seek information from the State Health Departments, 42 of which now have Tuberculosis Divisions and Control Directors, many of whom are working closely with the Public Health Service. Miraculously, reports were received during August, 1948, from every one of the 48 states. Additional help was received from physicians and from officials of tuberculosis associations.

A brief questionnaire was used to obtain the data and to explain the purpose of the survey. One question was stressed as being most important—"Which general hospitals in your state are now taking routine chest X-rays of all admissions?" Other questions were aimed at finding out whether plans were under way for an increased use of the method; what size film was being used; who paid for the original equipment

and for maintenance; and whether cost data were yet available.

The term "general hospital" was used advisedly. There were 6,276 registered hospitals in the United States in 1947, of which 4,539 were general in type; specialty and federal hospitals were excluded. The patients of general hospitals, moreover, included 93 per cent of the 15,829,514 patients admitted to all hospitals, even though they had only 42 per cent of the bed capacity. It is this population—14,665,000 patients, plus another huge number of outpatients each year—which it would be most logical to examine routinely, and about which we would like to know.

Of the 4,539 general hospitals in the United States, 247 replied that they were taking routine chest X-rays. Several additional hospitals stated that they had plans and equipment for starting such a program. The equipment for routine chest X-rays was provided by the hospital in 33 instances; by the state for 110 hospitals, by the federal government for 49 and by the city and county for four. The funds for equipment for 40 hospitals were supplied by tuberculosis associations. The survey was supported by the hospital in 92 instances, by the state in 59, and by the city or county in 11. All or part of the cost was borne by the tuberculosis association in nine instances and by a direct charge to the patient in 20 instances.

The best data for costs in a large-scale operation and the best evidence that a low cost is possible come from the Johns Hopkins Hospital. The operating expense for a 70 mm. unit, including all factors, was 34 cents per patient when



1,400 films a month were taken, and 25 cents when 2,100 were taken. In community-wide surveys, which compete in some ways with hospital surveys, the Public Health Service has found the usual cost to be about 55 cents per person.

The actual efficiency of the method in the hospitals is highly variable. The term "routine" is a misnomer. Factors which contribute to this partial usage include difficulties of administration, technical inconvenience, lack of an interested director, opposition of staff members, and the exclusion of certain patient groups (infants, obstetrical patients, very ill patients, surgical patients and private patients). Administration is a more difficult obstacle than the cost of equipment. Since the actual efficiency of the camera film, the 4x5 film, the 14x17 single film, and paper X-rays is said to be practically the same, cost and convenience are the real criteria for choice.

### Summary and Conclusions

A survey has been made to determine the current use of routine chest X-rays in general hospitals of the United States. State Boards of Health were used as the principal source of information. Two hundred and forty-seven of the 4,539 general hospitals in the United States are reported to have a program in action. Numerous other hospitals have equipment or plans for starting a program. The number of hospitals now taking routine films is double the number said to be doing so in 1945. Few of the hospitals include all of their patients in these "routine" surveys. Use of the method must be extended to more hospitals, and to more of the registrants of the hospitals if it is to approach its real value. The source of funds for equipment is largely civic, with voluntary groups giving valuable assistance. The "drive" has come from federal, voluntary, and hospital groups. Funds for maintenance of routine X-raying come from both subsidies and charges. Not enough data are available yet to determine the cost of taking the various kinds of X-rays under the diversity of conditions. Charges, where made, are not yet based on an accurate estimation of costs. There is evidence that costs may be decreased. Lack of funds, lack of information, inertia, and the chores of administration are the barriers to wider usage of the method. For each of these problems, there seems to be a solution.

The Current Status of Routine Chest X-raying in General Hospitals of the United States, William H. Oatway, Jr., M. D., Arizona Medicine, January, 1949.

## PROCEEDINGS OF SOCIETIES

The 1949 programs of the Pulaski County Medical Society are listed below. Members of the Arkansas Medical Society are cordially invited to attend these meetings.

April 4th

"Pain in Neck and Shoulders"

Dr. Sam Thompson, orthopedic aspect; Dr. Robert Watson, neurological aspect; Dr. D. A. Rhinehart, roentgenological aspect; Dr. Joe Shuffield, general summary and conclusions.

May 2nd

Roundtable discussion, heart disease

Dr. S. C. Fulmer, moderator; Dr. J. N. Compton, Dr. Fred Harris, Dr. John Gruetter, Dr. D. T. Hyatt, Dr. Doyle Fulmer, Dr. Dan Autry.

September 12th

Program sponsored by Medical School  
"Certain Non-tuberculosis Medical Diseases of the Chest"

1. Cave Disease—John Tuohey, M. D., Arkansas State Board of Health, Division of Communicable Disease Control.

2. The Laboratory Approach to Diagnosis of Mycotic and Virus Diseases—Carl E. Duffy, Ph. D., Professor of Bacteriology, University of Arkansas School of Medicine.

3. The Radiological Approach to Diseases of the Chest—L. Meschan, M. D., Professor of Radiology, University of Arkansas School of Medicine.

October 3rd

Dr. Woobridge E. Morris, Trinity Hospital—  
"Rickettsial Disease in Little Rock."

November 7th

Dr. Carl Moore, St. Louis, Missouri—"Recent Advances in the Treatment of Blood Diseases."

December 5th

President's Address.

Garland County Medical Society has elected the following officers: President, E. R. Browning; Vice-president, H. King Wade, Jr.; Secretary-treasurer, E. G. Houston; Delegates, E. D. Rowland, G. C. Coffey and C. H. Lutterloh, and Alternates, N. B. Burch, F. M. Adams and L. E. Reed.

Monroe County Medical Society has elected the following officers: President, E. D. McKnight; Vice-president, Herd Stone; Secretary-treasurer, W. L. Walker; Delegate, Joe Rector, and Alternate, W. L. Walker.

The Craighead-Poinsett County Medical Society met in Jonesboro March 3rd for the following program: "Polycystic Kidneys," I. G. Dun-



can, Memphis; "The Educational Program of the American Medical Association," P. W. Lutterloh, Jonesboro; Joe Verser, Harrisburg, and L. H. McDaniel, Tyronza.

Hot Spring County Medical Society has elected the following officers: President, R. V. McCray; Vice-president, C. F. Peters; Secretary-treasurer, John W. Cole; Delegate, Herman Brown, and Alternate, C. R. Ellis.

Phillips County Medical Society has elected the following officers: President, M. Fink; Vice-president, R. L. Chrestman; Secretary-treasurer, John B. Terry; Delegate, J. W. Butts, and Alternate, J. B. Terry.

White County Medical Society has elected the following officers: President, James D. Kinley; Vice-president, Paul T. Hudgins; Secretary-treasurer, Hugh R. Edwards; Delegate, Porter R. Rodgers, and Alternate, W. C. Dodd.

Lafayette County Medical Society has elected the following officers: President, F. E. Baker; Vice-president, ..... ? ..... ; Secretary-treasurer, A. W. Keith; Delegate, R. H. Harrison, and Alternate, A. W. Keith.

The Greene-Clay County Medical Society and Auxiliary met at the Vandervoort Hotel, Paragould, Arkansas. Mrs. Edith Breece presented a paper on "Anesthesia" which was enjoyed by the thirty members present. The Society cordially invites any visiting doctor to their future meetings. —W. McD. Lamb, Secretary.

The Washington County Medical Society held its regular monthly meeting March 1st at Fayetteville. W. A. Fowler, Fayetteville, spoke on Rheumatic Heart Disease.

The Sebastian County Medical Society was addressed March 8th by Robert H. Bayley, Oklahoma City, on "Rheumatic Heart Problems." Dr. Earle H. Hunt and Mr. Sid Wrightsman, Jr., discussed the educational campaign of the medical profession on compulsory health insurance. A. F. Hoge and Fred H. Krock were elected delegates to the annual session of the Arkansas Medical Society. —J. B. Stewart, Secretary.

Randolph County Medical Society has elected the following officers: President, J. W. Brown; Vice-president, N. K. Smith; Secretary-treasurer, M. A. Baltz; Delegate, W. E. Hamil, and Alternate, M. A. Baltz.

A postgraduate course in pediatrics conducted at the University of Arkansas School of Medicine March 11th and 12th was addressed by: Samuel Thompson, "Cerebral Palsy: Treatment and End Results"; W. P. Kolb, "Behavior Problems"; Jas. G. Hughes, "Acute Nephritis"; Alan G. Cazort, "Allergic Problems"; W. A. Reilly, "Treatment of Pyogenic Meningitides"; Russell Blattner, "Prophylactic Immunizations"; Paul Mahoney and Jas. Louis Smith, "Sight and Hearing Test"; Alice Gamble, "Management of the Premature and Its Public Health Aspects"; Russell Blattner, "Diagnosis and Therapy of Rickettsial Diseases"; Jas. G. Hughes, "Tuberculosis," and W. A. Reilly, "Remarks on Present Day Diphtheria Problems."

The Benton County Medical Society met in dinner session at Bentonville March 10th for the following program: "The Educational Campaign of the Arkansas Medical Society," Earle H. Hunt and J. M. Kolb, Clarksville, and "The Organization and Management of Small Hospitals in Rural Communities," Mr. Moody Moore.

—Geo. M. Love, Secretary.

The Five County Medical Society met in dinner session at DeQueen March 10th for the following program: "Burning Epigastric Pain," Alfred Kahn, Little Rock; "Modern Concepts in Psychiatry," Louis A. Cohen, Little Rock; "Carcinoma of the Cervix," C. P. Klein, Texarkana; "An Analysis of the Tumor Clinic at Texarkana," W. B. Harrell, Texarkana; "The Responsibility of the County Society in the State Educational Campaign," Joe Shuffield, Little Rock, and Mr. Sid Wrightsman, Jr., Fort Smith.

Columbia County Medical Society has elected the following officers: President, John Ruff; Vice-president, H. H. Kitchens, Jr.; Secretary-treasurer, Chas. L. Weber; Delegate, T. H. Jones, and Alternate, H. K. Carrington.





## PERSONALS AND NEWS ITEMS

Among those registered at the Dallas Clinical Society session were Fred H. Krock, J. B. Stewart and W. F. Adams, Fort Smith, and J. J. Monfort, Batesville.

Robert Brown, formerly with M. C. Hawkins, Jr., at Searcy and recently on medical mission duty in Southern Rhodesia, Africa, has returned to Searcy and will again be associated with Dr. Hawkins.

E. H. Abington and D. W. Sloan have been elected directors of the Beebe Chamber of Commerce.

In attendance at the recent Cincinnati session of the American Academy of General Practice were L. T. Evans and Charles A. Taylor, Batesville; R. H. Whitehead, Sr., and R. H. Whitehead, Jr., DeWitt; G. L. Kimball, DeQueen; L. H. McDaniel, Tyronza; G. R. Siegel, Clarksville, and R. B. Robins, Camden.

Acting Dean W. C. Langston of the University of Arkansas School of Medicine has announced that senior medical students will be free of school duties during the 1949 summer vacation and hospitals desiring to avail themselves of their services are invited to write Mr. Kenneth W. Newman, Director of Administration, University Hospital, 1209 McAlmont Street, Little Rock.

Dr. and Mrs. H. E. Murry, Texarkana, attended the New Orleans Postgraduate Medical Assembly and then visited Mexico during March.

G. R. Siegel, Clarksville, has been elected a director of the Ozarks Playground Association.

T. P. Foltz, Fort Smith, addressed the District Nurses' Association recently on "Pre- and Post-operative Management."

In attendance at the New Orleans Postgraduate Medical Assembly were: John H. Wilson, Magnolia; J. W. Amis, M. B. Hoge, and W. L. Shippey, Fort Smith; W. M. Woods, Huntington; B. E. Barlow, Dermott; Chas. G. Leverett, McGehee; C. W. Dixon, Gould; B. M. Saltzman, Mountain Home, and B. T. Kolb, Paul Mahoney and Carl A. Rosenbaum, Little Rock.

Dr. and Mrs. S. A. Southall, Lonoke, celebrated their golden wedding anniversary February 21st.

G. R. Siegel, Clarksville, has been elected a

## WOMAN'S AUXILIARY NEWS

Two hundred guests attended the third annual benefit bridge luncheon and style show presented by the Woman's Auxiliary to the Jefferson County Medical Society recently. A Valentine motif was carried out in the decorations of the Hotel Pines ballroom, with spring blossoms arranged at vantage points.

The stage for the style show was arranged against a white backdrop, with interest centered in a gold wrought iron grill, backed with red satin, with gold hearts suspended on tiny ribbons.

director of the Johnson County Chamber of Commerce.

R. B. Robins has been elected president of the Civic Music Association at Camden.

Dr. and Mrs. John William Smith, Little Rock, spent a recent vacation in Mexico.

H. Clay Chenault addressed the psychiatric conference at the Fort Roots Veterans Hospital February 28th on "The Place of Psychiatry in Medical Education."

Louis K. Hundley, Pine Bluff, was a recent guest speaker at the Postgraduate School of Medicine, Tulane University of Louisiana, New Orleans, speaking on the management of trachoma.

Chas. T. Chamberlain recently addressed the Fort Smith Kiwanis Club on "Compulsory Health Insurance."

Guy Shrigley, Clarksville, spent a recent vacation in Florida.

Earle H. Hunt, Clarksville, addressed the special session of the House of Delegates, Oklahoma State Medical Association, Oklahoma City, February 20th.

"The Changing Picture of Tularemia Transmission in Arkansas" by A. M. Washburn and John H. Tuohy, Little Rock, appeared in the January, 1949, issue of the Southern Medical Journal.

R. B. Robins, Camden, addressed the special session of the House of Delegates of the Louisiana State Medical Association in Alexandria February 20th.

George E. Gibson has moved from Monticello to Marvell.



A rose tree of pink and red blossoms and palm trees completed the setting.

Three state officers of the Arkansas Medical Society Auxiliary were honor guests March 15 at the March luncheon meeting of the Auxiliary to the Sebastian County Medical Society.

They are Mrs. Mason G. Lawson, Little Rock, state president; Mrs. Lewis K. Hundley, Pine Bluff, president-elect; and Mrs. Charles P. Henry, Little Rock, vice president. Mrs. Lawson spoke on "Compulsory Health Insurance," and Mrs. Hundley on the work for the coming year. They were introduced by Mrs. A. S. Koenig, chairman of the courtesy committee.

At the business session, officers for the year were elected, and plans for coming events made.

Mrs. Kenneth Thompson was named president, to succeed Mrs. T. P. Foltz, who presided, and who automatically becomes vice president; Mrs. John D. Olson, secretary, to succeed Mrs. L. A. Whittaker, Jr.; and Mrs. A. S. Koenig, treasurer, to succeed Mrs. Ralph Crigler.

The president appointed Mrs. L. A. Whittaker, Jr., and Mrs. W. L. Shippey delegates to the state convention, April 14-15, in Little Rock; and Mrs. W. R. Brooksher, Jr., and Mrs. J. S. Southard, alternates. She also named Mrs. Southard, Mrs. Brooksher and Mrs. John Ben Stewart, a committee on arrangements for the May party for the Sebastian County Medical Society. The place and date for the party is to be determined.

The luncheon meeting was held at the McCartney house, 500 South Nineteenth Street. Bowls of daffodils, and candlesticks holding yellow tapers decorated the tables.

Present besides the state officers were Mrs. I. Fulton Jones, hostess for the day; Mrs. Foltz, Mrs. E. C. Moulton, Sr., Mrs. E. C. Moulton, Jr., Mrs. Roy Schirmer, Mrs. Ben Pride, Mrs. John D. Olson, Mrs. L. A. Whittaker, Mrs. Arthur F. Hoge, Mrs. D. W. Goldstein, Mrs. Fred Krock, Mrs. Ralph G. Kramer, Mrs. Walter Eberle, Mrs. M. E. Foster, Mrs. W. R. Brooksher, Jr., Mrs. Ralph Crigler, Mrs. W. L. Shippey, Mrs. W. F. Rose; and Mrs. G. C. Woods and Mrs. Merle Woods, of Huntington; Mrs. S. P. McConnell, Booneville.

The April meeting of the Auxiliary has been cancelled because of the state convention.

Mrs. Lawson and Mrs. Henry will leave Tuesday morning for Fayetteville to visit the Wash-

ington County Medical Society Auxiliary luncheon at noon.

Mrs. Hundley is the guest of Mrs. Brooksher.  
—Mrs. W. F. Rose, Publicity Chairman,  
Sebastian County Medical Society  
Auxiliary.

The Southeast Arkansas Medical Auxiliary met February 21st in Dermott. After dinner with the doctors at the Methodist Church the ladies went to the home of Mrs. E. E. Barlow for their meeting. Mrs. Brian Barlow, president-elect, presided. Delegates and alternates were appointed to the state meeting. Plans were discussed for the Doctors' Day program. After much business, the meeting adjourned to meet in Wilmott in March for the Doctors' Day program.

During the social hour Mrs. Brian Barlow showed interesting movies and pictures.

—Mrs. Van C. Binns.

Mrs. David S. Long of Harrisville, Missouri, Regional Commander of the American Cancer Society, presented an inspiring and informative address before 75 members of the Pulaski County Medical Society Auxiliary at its regular luncheon meeting, March 16, 1949, in the Junior League House. Mrs. George Trapp and Mrs. Margie Bartlett, Commander and Executive Secretary, respectively, of the Pulaski County Cancer Society; Mrs. W. R. Brooksher, of Fort Smith, State Commander of the Arkansas Cancer Society, and Mrs. Wm. G. Utterback, of the Arkansas Cancer Control Commission, were guests of the Auxiliary.

Mr. J. L. Redheffer of the Blue Shield-Blue Cross gave a short talk on the progress of medical insurance in Arkansas.

The following were elected for the coming year 1949-50: Mrs. J. Harry Hayes, President; Mrs. T. D. Brown, President-elect; Mrs. Carroll F. Shukers, 1st Vice President; Mrs. Alvin Longstreth, 2nd Vice President; Mrs. Hoyt Choate, Recording Secretary; Mrs. Robert Watson, Corresponding Secretary; Mrs. Mahlon D. Prickett, Treasurer; Mrs. Gordon Oates, Publicity Secretary; Mrs. C. E. Witt, Historian; and Mrs. B. A. Rhinehart, Parliamentarian.

Delegates for the Arkansas Medical Auxiliary state meeting to be held in Little Rock April 14-16 were elected as follows: Mrs. Mahlon D. Prickett, Mrs. Gordon Oates, Mrs. Paul Fulmer, Mrs. Dan Autry, Mrs. Harry Hayes, Mrs. John Mc. Smith, and Mrs. Paul Hoover; alternates: Mrs. J. R. Warden, Mrs. T. D. Brown, Mrs. Glen Johnson, Mrs. C. C. Reed, Jr., Mrs. Joe Sanderlin, Mrs. Burt Phillips, and Mrs. Harvey Shipp.





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RESEARCH IN THE SERVICE OF MEDICINE

---

1. Howarth, S.; McMichael, J., and Sharpey-Schafer, E. P.: The Circulatory Action of Theophylline Ethylene Diamine, Clin. Sc. 6:125 (July 17) 1947.



Hostesses for the meeting were Mrs. Philip Cullen, Mrs. Charles Wallis, Mrs. H. F. Gray, Mrs. Howard Armstrong, Mrs. Ben D. Means, and Mrs. D. R. Hardeman. The program was in charge of Mrs. Lamar McMillin and Mrs. James Newbill.

### CORRESPONDENCE

Paul Mahoney has recently received the following letter from Hon. Brooks Hays:

"Paul:

"I am opposed to State Medicine.

"I am opposed to Socialized Medicine.

"I am opposed to Compulsory Health Insurance.

"I am opposed to any plan that deprives a person of his right to select his physician."

### OBITUARY

GROVER C. DEBOLT, age 64, Little Rock, died suddenly February 2, 1949. A graduate of the University of Tennessee, he served an internship in Little Rock General Hospital and subsequently practiced in El Dorado, Diamond, Missouri, and Rogers. He accepted an appointment with the Little Rock office of the Veterans Administration during 1948. He was a member of the American Legion, the Lions Club and of the Phi Beta Pi fraternity. During his residence in Rogers, he served the Benton County Medical Society as secretary and as delegate. Surviving him are his wife and a daughter.

WRIGHT W. HATCHER, age 65, died at his home in Pocahontas February 9th. Born in Randolph county, October 8, 1883, he graduated from the University of Tennessee Memphis Hospital Medical College in 1909 and practiced at Imboden for 39 years, moving to Pocahontas only recently. He was married to Miss Kathleen Hill in 1912, who, with two sons, survives him. He had served as Lawrence County health officer for about 30 years, was a past-president of the Lawrence County Medical Society and of the First Councilor District Medical Society and was a member of the Imboden Methodist church.

JAMES HERBERT HAMNER, age 78, of Aubrey, died January 31, 1949, at Monticello. Born in Kentucky, he graduated from Kentucky University Medical Department in 1906 and began practice at Wilson in 1912. He had recently retired after practicing for 10 years in Aubrey. Surviving are a son and a daughter.

### RESOLUTION

WHEREAS, Almighty God has seen fit to take from us our friend and colleague, Dr. William R. Orr, we, the members of the Phillips County Medical Society, deeply regret his untimely passing.

WHEREAS, as a physician and surgeon he has brought unfailing devotion and professional honesty to those in need of his services without regard to personal sacrifice, and has through a lifetime of adherence to the finest concepts of medical service, won the devotion and respect of his colleagues, as well as the gratitude of the community he served so faithfully.

BE IT RESOLVED, that the members of the Phillips County Medical Society express to his family their deepest sympathy in the loss they have sustained, and of its great respect for his ability as a physician and surgeon, and colleague; that a copy of these resolutions be made a matter of record in the minutes of the Society; that a copy be sent to his family, and that a copy be sent to the Journal of the Arkansas Medical Society.

Henry H. Rightor,  
George R. Storm,  
J. W. Butts,  
Resolutions Committee.



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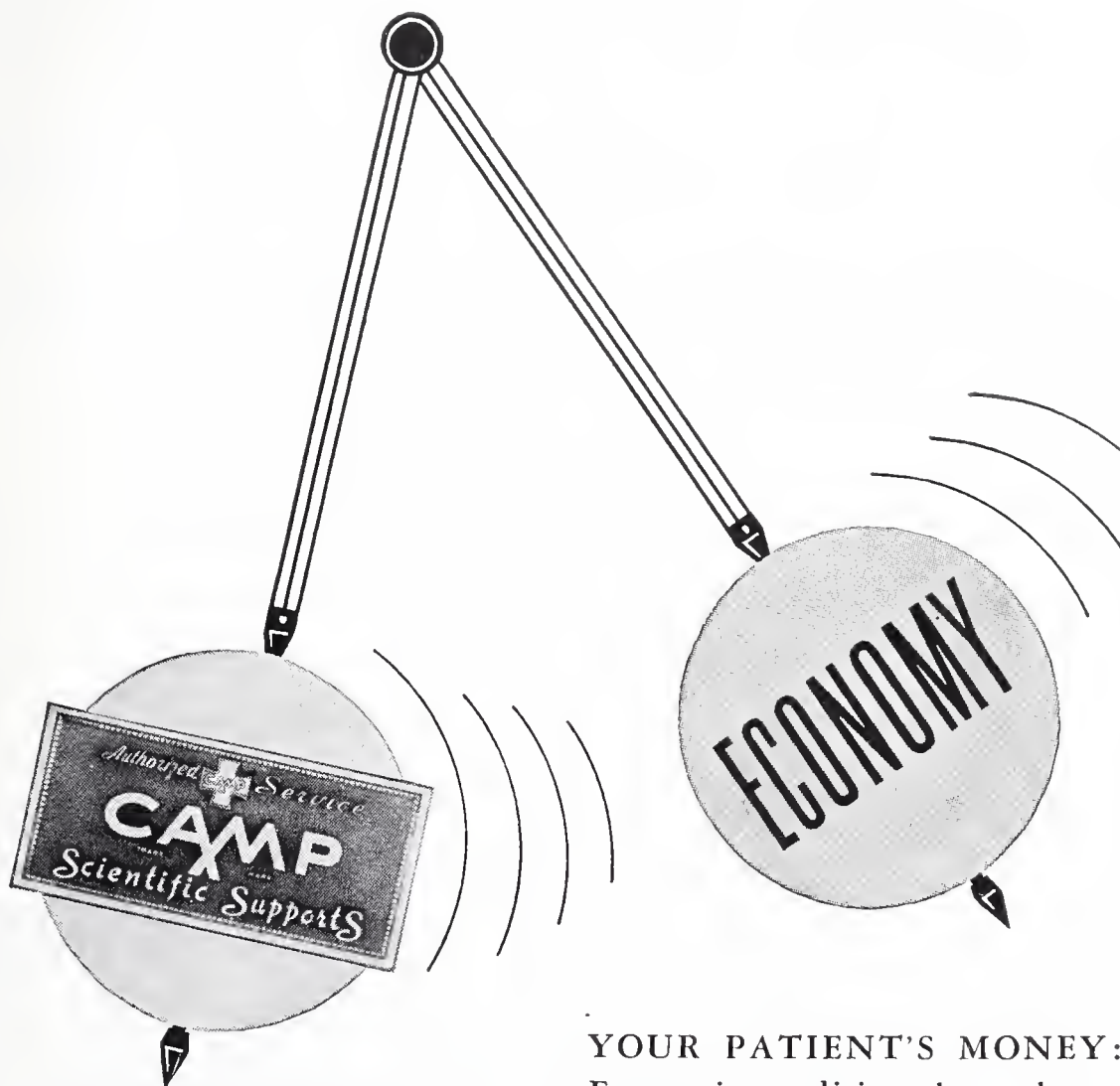
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## BOOK REVIEW

**Correlative Neuroanatomy**, by Joseph J. McDonald, M. S., M. S. C. D., M. A., Joseph G. Chusid, A. B., M. D., Jack Lange, M. S., M. D. 4th edition, revised. University Medical Publishers, Palo Alto, California.

This is a new edition of the well known and useful little volume on the anatomical basis of neurological diagnosis. Perhaps no volume ever published has incorporated more precise information in a smaller amount of space. Both the central and peripheral nervous system are covered in their essential anatomy and their clinical significance, with respect to the sites of lesions affecting them. The volume is well illustrated with simple line drawings of the most informative sort. This new edition expands and brings up to date the material of earlier printings.

The volume is intended to serve as a reference book on the problems of basic neurology and can be strongly recommended to the advanced student, the neurological and psychiatric specialist, and to the general practitioner.

**Textbook of Human Physiology**, by Wm. F. Hamilton, Ph.D., Professor of Physiology, University of Georgia School of Medicine, F. A. Davis Co., is 488 pages (no fine print) of essential information in very readable form.

A practitioner sees this book as one especially prepared for himself. It gives him an appreciation and an understanding of physiology which will make him a better diagnostician and therapist. Each reading will help him to understand clinical problems encountered since his last

review. A medical student, forced to plod through endless pages of fine print in the conventional textbook, would profit in time and understanding by reading the corresponding sections in this text. What is more, it would make his course interesting.

Chapters on "education" of the nervous system, through various perceptions and their organization, tend to simplify or rationalize the great mystery of consciousness.

The section on respiration is presented logically and organized in a manner to be of practical value in treating those with impaired function of this system.

To the reviewer, the discussion of the circulation with its ramifications is the best section of the book. It should be. The author has long recognized the fallacies inherent in drawing conclusions from the study of heart-lung or other isolated, mechanically operated tissues. His own extensive investigations have been made on normal, live, unanesthetized dogs. His observations are therefore as ideally made as may be possible in experimental work. Circulation in various organs and tissues is discussed, then the functional relationship with the various other tissues and systems is explained. The discussion of the respiratory circulation in its interdependence on the systemic is an example of clarity through organized brevity which every author would do well to emulate.

Digestion, Body Fluids, Kidney Function, Metabolism, and the Endocrine System are handled in a comparable manner. Emphasis is always on the important and the known. Presentation is effected in such a manner that the practitioner can actually apply the information in his thinking.

—Alan G. Cazort, M. D.

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# The JOURNAL OF THE ARKANSAS MEDICAL SOCIETY

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No. 12

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## OF THE ARKANSAS MEDICAL SOCIETY

PUBLISHED MONTHLY UNDER DIRECTION OF THE COUNCIL

Vol. XLV

FORT SMITH, ARKANSAS, MAY, 1949

No. 12

### AN UNUSUALLY LARGE BREAST LIPOMA \*

WM. B. HARRELL, M.D., Texarkana, Arkansas  
and  
ELMER L. DAVIS, M.D., Foreman, Arkansas

Lipomas of the breast are rare and it is most unusual to find this type tumor arising on the posterior aspect of the gland (1), (2). Of three thousand breast tumors collected in the Surgical Pathological Laboratory of the Johns Hopkins University and Hospital only twenty-four cases could be classified as true lipomas (3).

These fatty tissue tumors of the breast are of mesodermal origin and are considered benign. Simple excision is the recommended treatment for this type tumor.

Billroth and Fitzwilliams are among the authors who have previously reported large lipomas of the breast (4), (5). Deaver and McFarland quoted Billroth in reporting his case and there is no record of the exact size and weight of the tumor. Fitzwilliams, however, reported a case of a large adipose tumor, measuring 57.5 centimeters in circumference, being removed from the breast of an 87-year-old woman after death. This specimen is preserved at present in Guy's Hospital Museum. According to Fitzwilliams the tumor was under known medical observation for fifty-eight years before death of the patient. The case which is the subject of this report is similar in some respects to the one reported by Fitzwilliams. We feel, however, that the tumor in our case is one of the largest Retromammary lipomas that has ever come under medical observation.

L. B., a 75-year-old, married, colored female, who gives no history of ever being pregnant, was first seen at the Bowie-Miller County Medical Society Tumor Clinic August 22, 1848, complaining of a large tumor of the right breast, which prevented her from doing her routine household duties. She gave the following history:

At the age of thirty-five years, while living

in the Little River Bottoms, a flood and high waters made it necessary to move hurriedly to the hill country. In moving, the patient bruised her right breast and several days later noticed a small lump in the breast. Soreness in the lump disappeared after a few days. Approximately five years later she noticed that a wen on the back side of her right breast had grown to the size of a hen's egg, but was never sore and didn't interfere with her work. She paid very little attention to the wen until it became so large that she had to have special brassieres made to support the right breast. This was fifteen or twenty years after she first noticed the lump. At this time she consulted a doctor and he advised removal of the wen. The patient would not consent to the operation, however, and did not see another doctor until May, 1948, when she suffered from a weak heart. The doctor again advised that she have the breast tumor removed and referred her to the Tumor Clinic. The patient has no knowledge of breast tumors existing in other members of her family and gives no history of recent weight loss.

**Menstrual and Marital History.** Onset of menarche, age thirteen years. Regular 28-day cycle with menses of 5-day duration until menopause began at the age of forty-eight years. No history of cramping with periods. Patient married at the age of eighteen years and had no pregnancies.

**Physical Examination.** The patient was a small, elderly, poorly developed and undernourished, slightly senile, colored female not acutely ill.

Examination other than chest and breasts did not contribute to the diagnosis.

Inspection of the left breast revealed the breast to be small, flat, atrophic with no discoloration, dimpling, ulceration, or fixation. Transillumination of this breast was not significant.

The right breast was elevated and apparently fixed to a large tumor mass which measured sixty-five centimeters in circumference and appeared to be arising on the posterior surface of the gland (Fig. 1). No discoloration, dimpling,

\* From the Bowie-Miller County Medical Society Tumor Clinic, Texarkana, U. S. A.



or ulceration was noted. The lower portion of the tumor mass transilluminated well.

The left breast and axilla were negative on palpation, while the large non-tender tumor involving the right breast appeared to be smooth, rounded, fluctuant, and lobulated. The margins of the tumor were well defined, and on palpation the mass was freely movable and did not appear to be fixed or attached. No glands were palpable in the right axilla or above the clavicle.

Roentgenograms of the breast, chest and skeleton were negative. The heart findings were negative except for a soft systolic murmur at



Figure 1. Photograph of the right breast showing the relation of the breast to the tumor mass.

the apex. Blood pressure was 170 Systolic and 100 Diastolic.

Laboratory findings revealed a mild anemia, normal white count, normal chemistry and normal urinalysis. The Blood Serology was negative.

A Diagnosis of Lipoma was made and on August 26, 1948, excision of the tumor was performed without difficulty under local anesthesia. The post-operative course was uneventful and the patient was discharged from the hospital on the seventh post-operative day with the wound well healed.

**Pathological Report.** Gross-Specimen consists of a large mass of tissue measuring 65 x 54 x 54 centimeters. The mass is partially covered by a piece of wrinkled brown skin. There are no ulcerations of the skin. Beneath the skin is a large nodular mass of soft tissue varying from lemon yellow to orange in color. Upon sectioning various areas of fat, necrosis are seen varying from two centimeters in diameter to ten centimeters in diameter. Part of these are calcified, others are merely very necrotic, whereas

others show early necrosis. One section is taken from a mass of plain fatty tissue. One section is taken from an area of early necrosis. Two sections are taken from the nodular necrotic area.

**Microscopic**—Sections are breast. A large component of each section is composed of typical fat tissue. Some of the fat cell lacunae are filled with a homogenous acidophilic material, probably indicating some bio-chemical change in actual fat. There is a broad fibrous band extending across most sections in which are small foci of calcification. There are a few scattered foci of macrophages with several lymphocytes in the fatty stroma.

**Diagnosis**—Lipoma of the breast.

### Summary

1. A case of Retromammary Lipoma reaching the enormous size of sixty-five centimeters in circumference is reported in a colored female, age seventy-five years.

2. This tumor, while rare, occurs often enough to be considered in the differential diagnosis of all Breast Tumors.

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- (5) Fitzwilliams, D. C. L. Lipomata of the Breast. Lancet, P. 1074, (May 23) 1925.

## SUMMER DIARRHEA IN BABIES

Casec (Calcium caseinate), which is almost wholly a combination of protein and calcium, offers a quickly effective method of treating all types of diarrhea, both in bottle-fed and breast-fed infants. For the former, the carbohydrate is temporarily omitted from the 24-hour formula and replaced with 4 packed level tablespoonfuls of Casec. Within a day or two the diarrhea will usually be arrested, and carbohydrate in the form of Dextri-Maltose may safely be added to the formula and the Casec gradually eliminated. One to three packed level teaspoonfuls of a thin paste of Casec and water, given before each nursing, is well indicated for loose stools in breast-fed babies. For further information, write to Mead Johnson & Company, Evansville 21, Indiana.



## PIONEER DOCTORS OF BAXTER COUNTY \*

MRS. J. G. GLADDEN  
Harrison

Dr. J. B. Simpson practiced in Baxter County prior to 1881 and was located at Mountain Home, Arkansas. He was a Baptist and was instrumental in starting a college in Mountain Home.

--:

Dr. A. J. Brewer also practiced in Mountain Home and during the Spanish-American War he moved to Newport.

--:

Other early physicians of Baxter County included Dr. W. H. Lackey, Dr. E. E. Adams, Dr. G. R. Scott and Drs. Castelle and Ridley. Dr. Scott was well known around Gassville.

## CARROLL COUNTY

Dr. Jehu Winfield Poynor was born at Rule near Green Forest in Carroll County, December 3, 1848. He obtained his early education at Clark's Academy, a famous institution at Berryville and graduated at Washington University Medical School, St. Louis, Missouri, in 1884 and practiced at Osage until his death in January, 1924, at the age of 76.

Dr. Poynor's only vacation from practice was in 1907 when he served a term in the Arkansas Legislature. He was a devout member of both the Masonic and Odd Fellow lodges. He came from a family of doctors and has two sons, Dr. E. E. Poynor and Dr. W. H. Poynor, the latter now practicing in Harrison, Arkansas. Two of his brothers and two cousins were also physicians. His wife was Miss Norah Meeks of Berryville. Their daughters were Mrs. Nora Sisco and Mrs. Amo Cardwell.

--:

Pioneer doctors of Carroll County included:

A. A. Baker	E. K. Kelliberger
W. P. George	A. M. Westlake
W. H. Pilus	W. R. Hardesty
J. H. Mallay	R. Asbury
F. Ray	A. J. Gibbs
A. S. Thomas	Lous Baker (female)
M. Harrison	J. D. Davis
A. B. Baker	J. S. Simpson
John F. Yorth	F. M. Sargent
Samuel Eddens	George P. Young
W. S. Poynor	John G. DeWolf
J. E. Herbert	M. G. Miles

J. H. Upshaw	J. O. Queker
A. E. Quinn	L. B. Brown
J. P. Walden	W. D. Carroll
W. W. Johnson	George J. Bartley
I. M. Harrison	J. W. Lanier
W. B. DeJarrett	B. M. Hughes
W. A. Reese	J. B. Bolton
Chas. E. Davis	W. O. Stidham

## INDEPENDENCE COUNTY

MRS. L. T. EVANS  
Batesville

Dr. W. J. Bell was born on February 17, 1831, in Gibson County, Tennessee. He received his medical education at Vanderbilt University and first practiced in Jackson County, coming to Independence County in a few months to remain here until his death on March 11, 1911. He was married to Miss Christine McFarland and they had six children, four boys and two girls.

## NEWTON COUNTY

MRS. J. G. GLADDEN  
Harrison

Dr. James LeGrand was born December 26, 1843, in Indiana and at the presumed age of 25 began practicing in Bollinger County, Missouri, continuing there until he moved to Newton County in 1876 where he built up a large practice and also sold drugs in Jasper, Arkansas. Dr. LeGrand's mother was a sister of Abraham Lincoln's mother and her name was Sarah Hanks. Dr. LeGrand lived to be more than 90 years of age.

--:

Dr. T. J. Shinn was born in Russellville, Arkansas, June 30, 1851. He moved with his parents, Mr. and Mrs. James Madison Shinn to Yardelle, Arkansas, when a small boy. He began studying medicine at the age of 25 and took the examination in 1881 and registered as a practical physician. He continued his studies at home and took short courses at Little Rock. For 40 years he practiced in and around Yardelle, making many and long trips on horseback. Dr. Shinn passed away July 20, 1919, at the age of 68.

--:

Dr. S. S. Stacey came to Arkansas in 1875, practicing medicine at Sulphur Springs, Arkansas, several years and then moved to Marble Falls where he practiced sixteen years. He also practiced at Jasper. He lived a successful life and passed away at the age of one hundred and one years.

--:

Dr. James C. Blackwood was born in March, 1859, and married Rosetta Plumlee about 1880.

\* Presented by the Biography Committee, Woman's Auxiliary to the Arkansas Medical Society, Mrs. Chas. W. Dixon, Gould, and Mrs. C. W. Garrison, Little Rock.



At the age of 30 he took up the practice of medicine which he continued until his death at the age of 87 years.

Dr. T. K. Graham came to Newton County, Arkansas, about 1877 and married Amanda Carlton, daughter of Curtis Carlton about 1878 and moved to the Indian territory later where he continued his practice.

-:-

Dr. J. A. Tate, born about 1850. Practiced medicine at Cave Creek, Arkansas. Married Malissa Brooks and to them were born four children, all girls. Dr. Tate's practice covered about twenty years. He moved to Muldrow, Oklahoma, where he died in 1891.

-:-

Other doctors of early days in Newton County were:

F. M. Miles	T. A. Dover
R. C. Cline	W. H. Montgomery
J. B. Plumlee	John Maples
J. W. Ramsey	T. J. Garner
M. S. Salmon	Edward Ballenger
A. Ott	G. W. Maberry

F. K. Graham

### SEARCY COUNTY

MRS. J. G. GLADDEN  
Harrison

Dr. B. F. Watterson was born in Leslie, Arkansas, about 1855 and attended school in Nashville, Tennessee and Little Rock, Arkansas. He practiced in Campbell, Leslie and Marshall, Arkansas, several years prior to 1881; practicing in Searcy County from 1878 to 1892 and then moved to Oklahoma Territory when the government opened the country for settlement, where he stayed a number of years and then upon the failure of his health moved to Long Beach, California, where he now resides at the age of 92.

-----

Dr. John W. S. Leslie was born in Leslie, Arkansas, in 1841 and died November 24, 1900. He studied Medicine under Dr. Stephenson at Leslie and practiced at Marshall during the Civil War, continuing until his death. He resided in the Canaan settlement six miles west of Marshall.

-:-

Dr. William Wilson Heard was born September 10, 1853 and died January 18, 1936 at the age of 83. His birth place was Salinas, Clay County, Tennessee. Dr. Heard was married January 6, 1876, at Jamestown, Fintress County, Tennessee, and when 27 years of age moved with his family and that of his father's, Dr.

Jessie Heard, to Arkansas in 1881, settling near Morrilton, Arkansas in Perry County at the foot of Petit Jean Mountain where he practiced for four years and then moved to Searcy County. The move was made in a covered wagon and after camping at Piccaune Springs, homesteaded a place near there which was later known of the post office he was appointed postmaster and served for many years. In 1927 he moved to Marshall, Arkansas, and spent his time on a farm but continued his practice until three weeks before his death.

-:-

Dr. Sparlin Pinkney Ruff was born 1856 on Terapin Creek in Carroll County, Arkansas, son of Dr. Wesley Ruff. The family moved to Richland and he attended Medical College in Little Rock. Dr. Ruff began his practice at Richland but after two years moved to Calf Creek where he practiced until 1924. He was married to Nancy Campbell Taylor and to them eight children were born, seven surviving Dr. Ruff. After 1924, Dr. Ruff's practice was in Marshall where he continued until his retirement. Practically all his visits in the country were made on horseback. Dr. Ruff died at Marshall in 1942, age 86.

-:-

Dr. A. J. Redwine was born in Leslie, Arkansas, November 11, 1854, and died January 31, 1908. He attended school in Nashville, Tennessee and St. Louis, Missouri, and practiced in Marshall, Arkansas, several years before 1881.

-:-

Dr. J. L. Cypert was born January 14, 1853, and passed away November 11, 1923. So far as can be determined, he never attended Medical School but practiced in Searcy County, Arkansas, a number of years prior to 1881.

### OBITUARY

SAMUEL PAGE STUBBS, age 68, died at his home in Fort Smith March 23rd after an illness of several months. Born in Mountain Grove, Missouri, he graduated from the Kansas City College of Medicine and Surgery in 1918 and located in Fort Smith in 1919. He was a member and past-president of the Sebastian County Medical Society, the Arkansas Medical Society, a former president of the Fort Smith Board of Health, and a member of the First Baptist church. Surviving him are his wife, a daughter, and a son, Dr. S. P. Stubbs, Jr., who is on the staff of the Veterans Hospital at Fayetteville.



# TUBERCULOSIS ABSTRACTS

## *A Review for Physicians*

ISSUED MONTHLY BY THE NATIONAL TUBERCULOSIS ASSOCIATION

**M**EDICINE and its associated sciences can take great pride in the report which follows—it gives the progress to date of a large-scale cooperative endeavor in which many individuals and diverse agencies pooled skills and resources in testing a new therapeutic agent—streptomycin, against an old disease—tuberculosis.

### STREPTOMYCIN IN THE TREATMENT OF TUBERCULOSIS

**Pulmonary Tuberculosis.** Streptomycin has a limited but important place in the therapy of pulmonary tuberculosis, but should be withheld if other treatment is available and likely to be satisfactory. Streptomycin therapy is not advisable in: (a) chronic fibroid or fibrocaseous pulmonary tuberculosis; (b) acute destructive and apparently terminal tuberculosis, except for symptomatic relief; (c) minimal pulmonary tuberculosis with a good prognosis.

Streptomycin appears to be most effective in recent, acute, fairly extensive, and progressing pulmonary tuberculosis and is particularly recommended for tuberculous pneumonia. Streptomycin therapy is regarded as especially suitable for: (a) acute tuberculous bronchopneumonia; (b) acute bronchogenic spread, particularly if the acute process prevents much needed collapse therapy and (c) chronic disseminated finely nodular tuberculosis without large confluent areas of destructive disease.

As streptomycin can only be used for a few months in the therapy of this disease because of the emergence of resistant organisms, it is imperative that streptomycin be used during the course of the disease when the greatest benefit can be expected. **Streptomycin is best used as an adjunct and should be worked into an overall plan of treatment which will often include collapse therapy and generally includes institutional care. The Committee looks with disfavor on the practice of utilizing streptomycin prior to institutional care or as an alternative to collapse therapy.**

**Ulcerating Tuberculous Lesions of Mucous Membranes.** Streptomycin, preferably administered by the parenteral route, is recommended for laryngeal, tracheal, bronchial, oropharyngeal, and internal ulcerations, and tuberculous otitis media. It is less effective in granulomatous lesions in this area, still less so in diffuse in-

flammatory lesions and ineffective in cicatricial lesions.

**Tuberculous Sinuses and Fistulae.** Streptomycin is recommended in the treatment of draining tuberculous sinuses and fistulae. Usually, however, superior results are obtained only with streptomycin and suitable surgery.

**Genito-urinary Tract.** Streptomycin is recommended in the treatment of tuberculosis of the genito-urinary tract usually as an adjunct to other therapy.

**Tuberculosis of Bone, Joint and Cartilage.** Streptomycin is advised in the treatment of tuberculosis of bone, joint and cartilage with other therapy. Timing in the use of the drug is important.

**Tuberculous Meningitis.** Intensive therapy with streptomycin, administered both parenterally and intrathecally, is imperative for the treatment of tuberculous meningitis. Two grams a day should be given intramuscularly for from four to six months. It is recommended that not more than 50 mg. of streptomycin be administered intrathecally every second or third day during treatment. This may be given daily for the first week. Frequent and serious neurologic complications may arise as a result of this regimen, yet complete clinical remission is observed in an appreciable number of cases. The response is best when treatment is early so it need not await bacteriologic confirmation of the diagnosis. However, to avoid treating a non-tuberculous meningitis, streptomycin should be used only when an active tuberculous focus is present, or, the cerebrospinal fluid in culture is negative for ordinary pathogens but is characteristic of tuberculous meningitis.

**Miliary Tuberculosis.** Streptomycin therapy is indicated in the treatment of acute hematogenous (miliary) tuberculosis and chronic hematogenous disseminated tuberculosis. Good



clinical judgment is needed to differentiate these from nontuberculous pulmonary infiltrations especially in the early stages. Early treatment is desirable and in some cases should be started before bacteriologic confirmation. Bone marrow biopsy and culture may aid early diagnosis. Treatment should continue for at least four months. One to two grams a day is adequate dosage. In acute miliary tuberculosis, development of tuberculous meningitis is common. After the diagnosis is established, routine lumbar punctures are recommended. Intrathecal therapy should be added whenever the cerebrospinal fluid is abnormal.

**Tuberculous Lymphadenitis.** Streptomycin may be employed in the treatment of tuberculous lymphadenitis especially in the acute stage. The attendant toxicity and the emergence of resistant bacteria are factors limiting its use.

**Tuberculous Peritonitis and Pericarditis.** Streptomycin is recommended in the treatment of tuberculous peritonitis. Clinical remission is common and relapse relatively infrequent following adequate therapy. Streptomycin may not be expected to alter the sequelae of tuberculous pericarditis but appears to have a beneficial effect on the acute process itself.

**Dosage and Duration of Streptomycin Therapy.** Probably no single streptomycin regimen is suitable for all forms of tuberculosis. Except in miliary tuberculosis and tuberculous meningitis, it is advised that streptomycin be administered in one half gram doses, i.e., one gram daily, at 12-hour intervals in courses of 42 days. Until further study, it cannot be recommended that injections be made less frequently or for shorter periods of time than here indicated.

**Toxic Manifestations of Streptomycin Therapy.** Toxic manifestations are relatively infrequent on the dose recommended above, i.e., one gram a day. Nevertheless the following reactions do occur and the dangers should be weighed against the disease hazards: (a) a disturbance of vestibular function; (b) deafness, in very rare instances; (c) serious renal damage appears rarely without preexisting renal disease; (d) cutaneous rashes occasionally—serious exfoliative dermatitis rarely.

**Emergence to Predominance of Drug-resistant Tubercle Bacilli.** The disappearance of drug-sensitive strains of tubercle bacilli and their replacement with drug-resistant strains handicap prolonged effective therapy with streptomycin. This is usually avoided by confining duration of therapy to 42 days.

**Dihydrostreptomycin.** The Committee has reviewed limited experimental and clinical evidence

concerning dihydrostreptomycin, a hydrogenated derivative of streptomycin. The pharmacological and biological properties of dihydrostreptomycin and streptomycin are quite similar. Dihydrostreptomycin is less toxic than streptomycin in its action on the vestibular apparatus, although other toxic reactions sometimes occur. It appears to be tolerated by some patients who are hypersensitive to streptomycin. These advantages warrant extensive clinical trials.

Report of Clinical Subcommittee on Medical Research and Therapy, Chairman, John D. Steele, M.D., American Trudeau Society, American Review of Tuberculosis, January, 1949.

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## RESOLUTION

WHEREAS, God in His infinite wisdom has seen fit to remove from our midst our beloved friend and co-worker, Dr. Herman W. Hundling, a man whose professional training and high ideals have brought distinction and honor both to himself and to the Profession, and

WHEREAS, Dr. Hundling by precept and example, as practitioner and as Teacher in the Medical School, has been a source of inspiration and knowledge to the many Students and fellow workers with whom he has been associated for a generation, and

WHEREAS, this community has lost one of its most respected and honored citizens, and our Profession has lost one of its most ethical and able members,

BE IT FURTHER RESOLVED that the Pulaski County Medical Society feels deeply this loss of our friend and colleague and mourns his passing, and

Be it further RESOLVED that the Secretary of this Society be instructed to incorporate this resolution in the Permanent Records of the Society, and that a copy of this resolution be sent to the Secretary of the Arkansas State Medical Society, and a copy to the Family of Dr. Hundling.

Randolph T. Smith,  
M. J. Kilbury,  
George V. Lewis.

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# THE JOURNAL

OF THE  
ARKANSAS MEDICAL SOCIETY

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## EDITORIAL

### A ONE-SENTENCE EDITORIAL

What this country needs the least is an abundance of poor medical care.

### THE 1949 ANNUAL SESSION

Five hundred and twenty-six physicians registered for the 73rd Annual Session of the Society held in Robinson Auditorium, Little Rock, April 14th-16th. The scientific program was of the usual high standard yet regrettably few members were in attendance for the major part of these presentations. Drs. H. King Wade, Jr., and Anderson Nettleship arranged the most extensive scientific exhibit the Society has had in years and this had many visitors. The commercial exhibits occupied all the available space and the thanks of the Society goes to these worthy firms who support the Society's activities in such a material way. The Committee for the Extension of Medical Care was most successful in the program it arranged for the public on Thursday evening, April 14th, nearly 2,000 people attending the discussion by Marjorie Sher-

aon and Cecil Palmer. Pulaski County Medical Society was again the gracious host at the annual dinner dance Friday evening, April 15th. Among the actions of the House of Delegates, a full report of which will appear in the June Journal, was an assessment of twenty dollars as the annual membership assessment for 1950; approval of Blue Cross-Blue Shield; adoption of resolutions opposing compulsory health insurance and other socialistic tendencies of the Federal government; that more aggressive steps be taken against the illegal practice of medicine in the state; a resolution was adopted approving elevation and upward revision of the salaries of public health workers in the state; approved a tentative reorganization of the committees of the Society; approved the assessment levied by the American Medical Association upon members of the Society and provided for redrafting of the Constitution and By-Laws of the Society. Officers elected are: President, Euclid M. Smith, Hot Springs National Park; President-Elect, Earle H. Hunt, Clarksville; First Vice-President, Charles R. Henry, Little Rock; Second Vice-president, Jos. B. Wharton, Jr., El Dorado; Third vice-president, Harry E. Murry, Texarkana; Treasurer, Paul L. Mahoney, Little Rock; Secretary, W. R. Brooksher, Fort Smith; Councilor, First District, L. H. McDaniel, Tyrnza; Second District, J. J. Monfort, Batesville; Third District, S. A. Drennen, Stuttgart; Fifth District, John H. Wilson, Magnolia; Seventh District, Louie G. Martin, Hot Springs National Park; Ninth District, D. L. Owens, Harrison; Tenth District, Fount Richardson, Fayetteville; Delegate, American Medical Association, R. B. Robins, Camden, and Alternate, American Medical Association, D. A. Rhinehart, Little Rock. The Society will next meet in Fort Smith.

### COMPULSORY HEALTH INSURANCE

"Adoption of a system of politically-controlled medical practice, as recommended by President Truman, would turn back the clock of medical progress in this country 50 years!"

The American Medical Association so charged in a statement by Dr. Elmer L. Henderson, chairman of its Board of Trustees, and added:

"The inevitable deterioration in the quality of care which would result from government-herding of patients and doctors into assembly-line medical mills would lower the standards of healthy America to those of sick, regimented Europe."

Dr. Henderson's statement follows:

"President Truman's special message, asking



enactment of a National Compulsory Health Insurance Program, deserves most careful scrutiny both by Congress and by the American people, whose health would be seriously endangered if this Old World scourge is allowed to spread to our New World.

"There is neither hope nor promise of progress in this system of regimented medical care. It is the discredited system of decadent nations which are now living off the bounty of the American people—and if adopted here, it would not only jeopardize the health of our people, but would gravely endanger our freedom. It is one of the final, irrevocable steps toward State Socialism—and every American should be alerted to the danger.

"One of the great dangers in political diagnosis of the health needs of the people is the temptation to over-simplification. President Truman has fallen into this error.

"The President sets forth an objective which all of us can warmly endorse—namely, bringing adequate health services within the reach of all the people. The doctors of America, in co-operation with the prepaid medical and hospital care plans and the many splendid voluntary health insurance systems, have made great progress in achieving that objective, so we have no quarrel with the President on that score.

"President Truman, however, proceeds from a desirable objective to a highly-undesirable proposal for achieving that objective. There is a great deal of double-talk in the President's message, but what he actually proposes is a National Compulsory Health Insurance System which would regiment doctors and patients alike under a vast bureaucracy of political administrators, clerks, bookkeepers and lay committees.

"Every wage-earner, every self-employed person and every employer would be compelled to contribute exorbitant pay roll taxes, eventually mounting to a tax of 8 or 10 per cent on every paycheck, to support this system—and the cost of medical care, instead of being reduced, would be doubled and trebled by bureaucratic overhead. The record is clear in every country where Compulsory Health Insurance has been adopted. It is cheap in quality, but extravagantly high in price.

"The President's message, in some respects, was persuasive and disarming. The ideals and objectives were stated in glowing terms, but the message was completely lacking in any specific statement of the services to which the people would be entitled, or any estimate of the taxes

which they would be compelled to pay.

"Mr. Truman has been too long away from Missouri, if he believes the American people will sign a blank check for such an ambiguous program. The people will want to be shown.

"There are many fallacies and misstatements in the President's message, some of which cannot go unchallenged.

"President Truman, for example, is about a decade behind the times in his statistics on the growth of the Voluntary Health Insurance Systems.

"He reports that only 3,500,000 people have insurance which provides adequate health protection. Ten or 15 years ago that was true. Today, Mr. President, 55,000,000 Americans are protected, under the Voluntary Health Insurance Systems of this country, against the costs of hospital care, and 37,000,000 policyholders are insured against surgical or medical bills.

"Again, the President falls into the error of stating that only limited, inadequate health protection is available under the Voluntary Health Insurance Systems. Actually, the voluntary systems are providing better coverage today than any compulsory program yet proposed—at about half the price.

"President Truman also makes the amazing assertion that adequate medical care is now beyond the means of all but the upper income groups. On the contrary, any family which can afford a package of cigarettes a day, or a weekly movie, can afford the finest kind of pre-paid medical and hospital protection. The cost is about the same.

"The most serious misstatement in the President's message—and one which it is regrettable any President of the United States would have uttered—is the repetition of that now completely discredited statement that tens of thousands of persons die needlessly in this country, due to lack of medical care.

"The President, in this instance, as in others, undoubtedly based his statement on the distorted report of the Federal Security Administrator, whose listing of 'needless deaths' included 40,000 deaths from accidents and 115,000 from cancer and heart disease.

"It is shocking that any government department head would seek to impose on the credulity of the American people with such flagrant misrepresentations—and it is unfortunate, indeed, that the President of the United States should have repeated, even in part, the misinformation contained in this report.

"There is a very real need in America for the



budgeting of medical costs and American medicine is proud of the part it has played in building the Voluntary Health Insurance System to meet that need. There is no need, however, for compelling the American people to join a government system. The voluntary way is the American way—and the people will resolve this problem, in a very short span of years, under the voluntary systems now available to them."

## RANDOM THOUGHTS OF THE SECRETARY

April 8th. With Chamberlain as one of the participants on the radio interview program of "Interesting People," the first time we have had that title even as a polite gesture and we mean to retain the memory.

April 13th. By highway 10 and its scenes, which are new, to Little Rock and registering in to find Chicago style hotel reservation procedure is in effect, a six months' old reservation being among the missing, but, at that, the hotel finds that it has a room left. To the General Practice dinner where McDaniel's girls vie with the Columbia County artists which Robins claims as his own and Cahal speaks with the usual fire and to the great interest of all and in the later evening, the University of Kansas holds a class reunion in the room of Euclid Smith, that proud alumnus of Texas A. & M.

April 14th. The 73rd annual session gets under way and there are no complaints— \* \* \* we assume our usual activity as electrician (must get a card one of these days) \* \* \* Wrightsman becomes initiated into the tribulations and joys of engineering the progress of an annual session, maintaining his composure in admirable manner \* \* \*. An uneventful session of the House of Delegates, freed happily from the tedious recitation of committee reports \* \* \* in the evening a full Auditorium crowd listens intently to Shearon and Palmer and how well it would be if these 2,000 people would make known their opposition to a socialistic philosophy of government \* \* \*. To the Henry's where we are glad that the youngsters take to us \* \* \* and much later with Martha Robins as our guest aboard the Rock Island for four hours' sleep into Mansfield.

April 15th. With an early start indeed we take up some of the odds and ends in our practice at home, seeing not a colleague, and by air back to the convention city, our guest, Martha, spending her time in animated conversation with the pilot and stewardess and thus winning a Junior Airline Hostess' Certificate \* \* \* joining in the affairs of the day including the Tulane Alumni luncheon where the Dean occupies the proverbial "Hot Seat" \* \* \*. In the evening to another of the wonderful social events sponsored by the Pulaski County society with Hoyt Allen in charge and with gayety meeting friends and guests \* \* \* visiting with the Monforts to hear more about the PEO but not too much \* \* \* present as Barney Crile learns why the name of Arkansas will not be changed \* \* \* those two nice couples, the Roy Millards and the Jimmie Branches, having a great time \* \* \* meeting the Kolb family \* \* \* comparing notes on cholecystectomies with Jim McKenzie \* \* \* Hoyt Choate's enthusiasm seems boundless \* \* \* the retiring Auxiliary president says nice things to us over what we have tried to do during the year \* \* \* The Ken Thompsons on a third honeymoon \* \* \* The Robert Jones who have three with

measles \* \* \* Fred Hames who gives us hams better than Smithfields \* \* \* retiring \* \* \* a good day.

April 16th. Viewing in detail the excellent scientific exhibits, the best in many a day thanks to Wade, Junior, and Nettleship \* \* \* visiting about the lobby with many a member, a practice strongly to be shunned as the speakers talk to small audiences \* \* \* perhaps next session should provide morning and afternoon social hours for this comradeship \* \* \* the final business of the house accomplished with dispatch and the society's most loquacious member attains the dignity of the presidency-elect with our firm mental reservation to restrain that garrulousness in the coming year with might and main \* \* \* a great guy for all that and we wish both he and Al Smith the happiest years of their lives as they preside over the affairs of our good society \* \* \* Tonight with the state cancer commission which has some difficulties as what agency does not and away with Tommy Foltz in a part-time conversationalist role over Highway 10 home.

April 19th. With Goldstein in his new car which he drives, if but slightly, better than he starts it, on to Booneville where 62 Logan county folks come to the diagnostic cancer clinic and there is variegated pathology plus the opportunity to talk with McConnell and the Hedricks, Dickey being unaccountably missing in his intern's uniform.

April 19th. With Goldstein and Bob Thompson on a cancer diagnostic clinic for return engagement at Paris, the demonstrable pathology being hum-drum and the occasion distinguished only for the visit with the Smiths and the by-plays between team members.

April 20th. This morning with the early ones to the Credit Women's Breakfast and never, have we seen so many good-looking women so dolled up at seven in the morning.

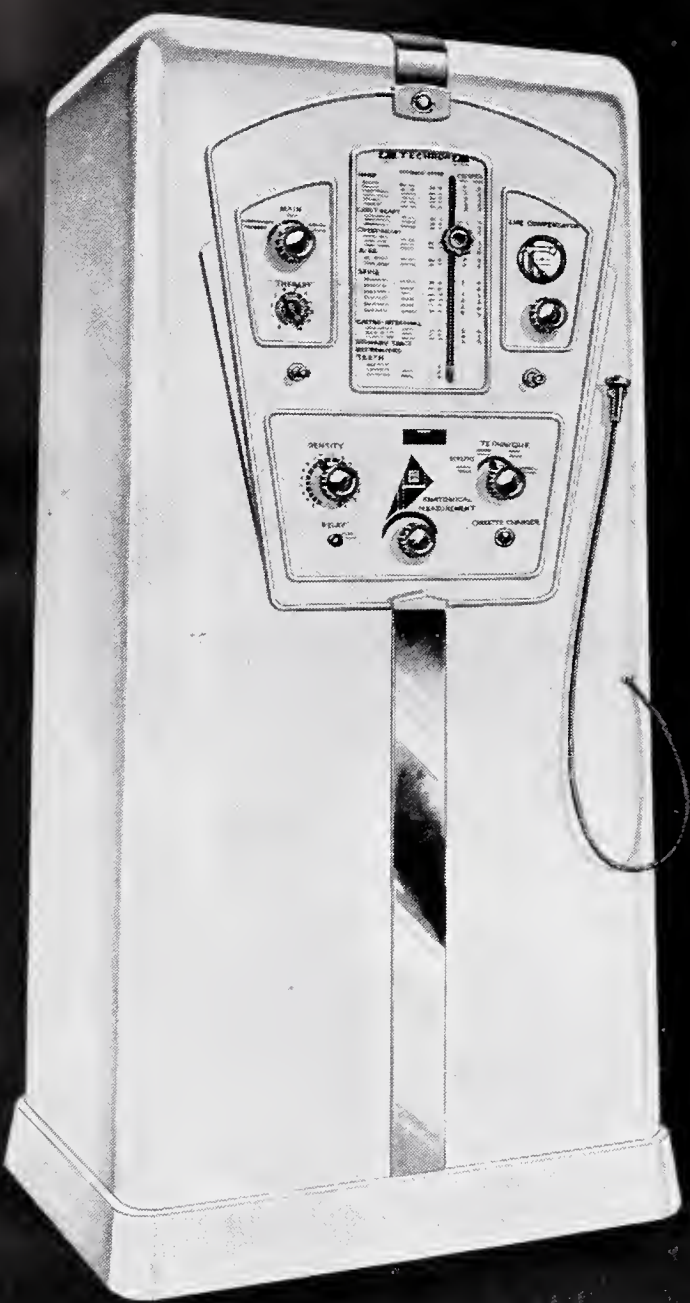
April 24th. With the Foltz's down to Foster's Lazy F Ranch in Yell county on a day never so beautiful with billowy clouds arising from Danville and Fourche mountains \* \* \* verdant expanse of pasture where graze the truly contented whitefaces and was there ever any animal so delightful to watch than a six weeks' old calf \* \* \* in the car about the place which we rechristen the Ranch of A Thousand and One Gates— \* \* \* thence by horseback, exercising unaccustomed muscles but this time, due to variations in our structure and that of the horse, it is Foster who must dismount and handle the gates \* \* \* and tired and happy homeward in the twilight leaving navigation to Peggy who is freed of the heckling we had on the going trip, Foltz having lost the map.

## FOR SALE

My practice and office equipment, which includes, 100-100 Keleket X-ray, Diathermy, Ultra-Violet, E.K.G., Laboratory, and a 4-bed Obstetrical Clinic, all furniture of steel, beds double crank. Dewitt is a town of 3,500 population with 3 Rice Mills, several small Sawmills, 2 Cotton Gins and surrounding territory with rice farms, cotton farms and timber. I have practiced medicine in this locality for 35 years and want to retire due to my health.

Homer Dickens, M. D.,  
DeWitt, Arkansas.





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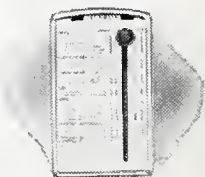
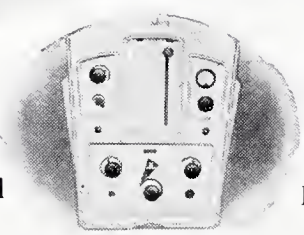
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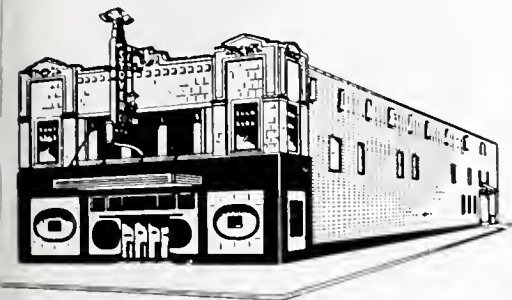
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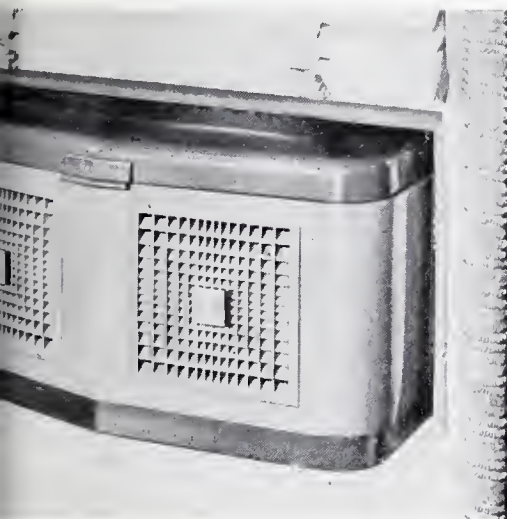
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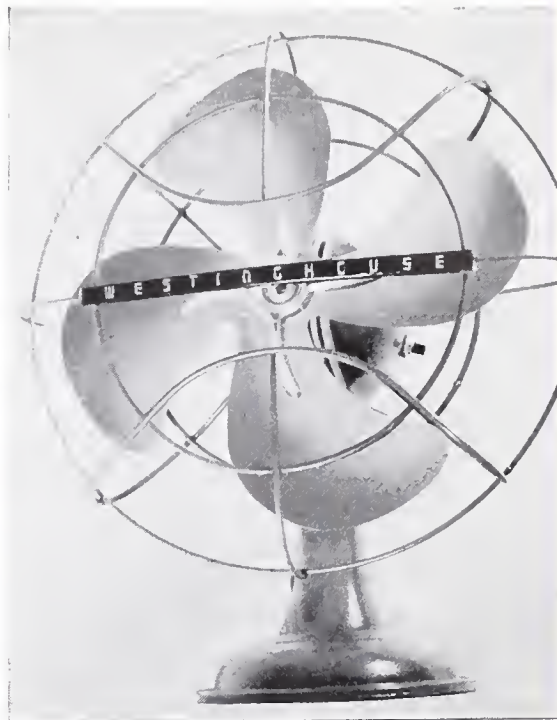
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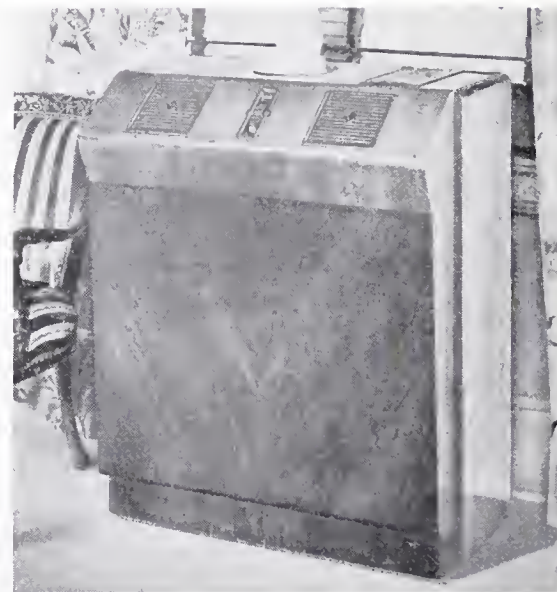
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## PROCEEDINGS OF SOCIETIES

Madison County Medical Society has elected the following officers: President, W. E. Acree; vice-president, L. E. Henderson; secretary-treasurer, C. B. Beeby, and delegate, C. B. Beeby.

The Greene-Clay County Medical Society and Auxiliary met in a joint dinner session at Paragould March 18th with the following program: "Pneumonia . . . Various Types of Respiratory Infections and Late Developments in Treatment," S. T. Cull, Little Rock; and "Recent Action Taken by the Arkansas Medical Society in Regard to Socialized Medicine," Joe Verser, Harrisburg.

Carroll County Medical Society has elected the following officers: President, Ross Van Pelt; vice-president, Charles Poynor; secretary-treasurer, W. A. Woodcock; delegate, D. K. McCurry, and alternate, J. F. Johns.

The Third Councilor District Medical Society held its semi-annual dinner meeting at the Bear Creek Lake Pavilion, Marianna, April 5th, with the following scientific program: "Therapy of Anemia," Carroll F. Shukers, Little Rock; "Practical Application to the Rupture of the Intervertebral Disc," J. Spencer Speed, Memphis; "Ordinary Urological Conditions Encountered by the General Practitioner," H. King Wade, Hot Springs; and "The Sub-Arachnoid Hemorrhage," Cal C. Turner, Memphis.

The following officers were elected: President, Wm. C. Hays, Marianna; secretary-treasurer, Floyd Dozier, Marianna.

Hempstead County Medical Society has elected the following officers: President, James W. Branch; vice-president, George H. Wright; secretary-treasurer, Walter L. Sims; delegate, Jim McKenzie.

Sebastian County Medical Society was addressed April 12th by Eva Dodge, Little Rock, on "The Problem of Infertility in General Practice."

J. B. Stewart, Secretary.

The Arkansas Heart Association met April 14th with Dr. Driver Rowland of Hot Springs, Arkansas, presiding and Dr. John Greutter, secretary. Internists, pediatricians, doctors in general practice and surgeons attended.

The Executive Committee announced that the next scientific meeting would be held in the fall,

at which time a program would be presented that will be open to the public. The program will deal with the practical discussions of heart disease for the lay people. The Arkansas Heart Association is cooperating with the American Heart Association in its endeavor to give the public information relative to heart disease.

All doctors regardless of their particular interest or specialties are invited to join the Arkansas Heart Association. Dr. John Greutter, Donaghey Building, Little Rock, will accept applications for membership.

Craighead-Poinsett County Medical Society met in Jonesboro April 7th for the following program: "Blue Cross-Blue Shield in Arkansas," Ellery C. Gay, Little Rock, and Mr. Jack Redheffer, Executive Director, Arkansas Medical and Hospital Service, Inc., Little Rock.

## SPECIAL QUESTIONNAIRES SENT COUNTY SOCIETY SECRETARIES

The secretary of each local medical society will soon receive in the mail a questionnaire on school health services in his community. The American Medical Association in cooperation with the U. S. office of Education is making a study of school health services through its Bureau of Health Education. The survey is a preliminary step in efforts designed to bring about improvement of school health programs within the framework of the private practice of medicine. For this reason, it is most important that each local medical society complete and return the questionnaire.

The U. S. Office of Education in Washington will concurrently query the schools. Two different questionnaires which supplement and reinforce each other and contain no duplicate questions are being used. The information requested is needed to determine present strengths and weaknesses in school health services, to indicate needs, and to point up action for the future. The questionnaire has been tested prior to printing and all unnecessary questions eliminated.

Senior Medical Student (as of June 15) desires employment as assistant to General Practitioner for summer months (June 15-Sept. 15). Jonathan P. Shermer, Univ. of Ark. School of Med., Little Rock, Ark. Home address: 53 Sunset Terrace, Little Rock, Ark.



## PERSONALS AND NEWS ITEMS

Guy Hodges has returned to Rogers after a vacation in Florida.

S. W. Chambers has been elected president of the Mountain Home Lions club.

"Factitial (Irradiation) Proctitis" by M. S. Craig, Jr., Little Rock, appeared in *Surgery*, March, 1949.

J. M. Kolb has been elected chairman of the Johnson County Democratic committee.

A. M. Washburn, Little Rock, was ordered to active duty as Colonel, Medical Corps, United States Army, recently to take a course in medical aspects of atomic warfare.

J. E. Gentry has moved from McCaskill to Hope.

D. W. Goldstein, R. J. Thompson and W. R. Brooksher, Fort Smith, conducted a diagnostic cancer clinic at Paris April 12th under the sponsorship of the Logan County Medical Society and the Logan County Division, Arkansas Cancer Society.

James W. Headstream is now associated with H. Fay H. Jones in the practice of urology at Little Rock.

Lowry H. McDaniel, Tyrone, has been appointed a member of the Council of the Southern Medical Association from Arkansas for a regular Council term of five years beginning at the close of the annual meeting in Cincinnati in November. Dr. McDaniel succeeds Dr. Oliver C. Melson, Little Rock, whose term will expire with the close of the Cincinnati meeting in November, and who, having served the constitutional limit, is not eligible for reappointment.

R. B. Robins has been elected president of the Knife and Fork club at Camden.

MARRIED—On April 16th, Joseph W. Ledbetter and Miss Joy Gregory at Jonesboro.

John H. Wilson, Magnolia, addressed the Webster Parish Medical Society at Minden, Louisiana, April 19th, on "Clinical Physiology of Post-operative Treatment."

Paul L. Mahoney, Little Rock, attended the recent sessions of the American Broncho-Eso-

phageal Association and the American Laryngological, Rhinological and Otological Association in Chicago.

D. W. Goldstein and W. R. Brooksher, Fort Smith, conducted a diagnostic cancer clinic at Booneville April 20th under the sponsorship of the Logan County Medical Society and the Logan County Division, Arkansas Cancer Society.

## RESOLUTION

Dr. Augustus Clyde Shipp first came to Arkansas in the early years of this century. After serving for a time as superintendent of schools at Benton, he returned to his native state of Indiana to study medicine. His ability as a teacher was soon apparent and he served as an assistant and as an instructor in the department of pathology both before and after his graduation. In 1914 he returned to Arkansas as Professor of Pathology in the University of Arkansas School of Medicine. Three years later he resigned this fulltime position to enter the private practice of medicine, specializing in internal medicine and diseases of the chest.

His early training as a pathologist and his assiduous scholarship assured his success as a practicing physician. His kindness, his capacity for sympathy and understanding, his treatment of his patients as human beings and not as cases, and his skill as a teacher in the clinical years at the Medical School endeared him to all those who came to know him.

Out of his interest in the treatment of patients with tuberculosis grew his interest in tuberculosis as a public health problem. He devoted much of his time and talents to tuberculosis control work. He served for many years as an officer and board member of the Pulaski County Tuberculosis Association; he served on the Board of Trustees of the Arkansas Tuberculosis Sanatorium at Booneville, and he served on the Board of Trustees of the American Tuberculosis Association. His interest in tuberculosis control work continued after his retirement from active medical practice.

As Dr. Shipp made an art of his profession, he made an art of living. He was devoted to his home and family. He was faithful to his church and its congregation, serving in many executive and educational capacities. Those who were fortunate enough to accompany him in the fields, on the lakes, or along the streams knew a sportsman of the highest caliber. He



had a talent for making friends and a greater talent for keeping his friends.

In his passing his family has lost a devoted husband and father, his community has lost a useful and selfless citizen, his church has lost a devoted member, and the Pulaski County and Arkansas Medical Societies have been deprived of one of their outstanding members. Because he has lived, a heritage of usefulness, integrity, and zest for life remains.

Therefore, be it resolved that the members of the Pulaski County Medical Society join with Dr. Shipp's family and friends in mourning his departure, that we extend to his bereaved family our heartfelt sympathies, that a copy of this memorial be sent to his family, and that it be entered on the minutes of this meeting of the Society.

Dr. Robert Caldwell,  
Dr. L. F. Barrier,  
Dr. D. A. Rhinehart.

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## CORRESPONDENCE

March 23, 1949

Dear Sir:

A most critical professional manpower shortage is facing the Medical Departments of the Armed Forces. The urgency of the need for physicians and dentists can be judged from the fact that by July of this year the Armed Forces will have lost almost one-third of their present staff of physicians and dentists. The tours of duty of these professional men will expire and normal procurement measures can not fill the vast number of vacancies that will arise.

By the end of July we will be short about 1,600 physicians and 1,160 dentists. By next December this shortage will grow to 2,200 physicians and 1,400 dentists. This shortage means that the Armed Forces will not have enough professional men to give minimum medical service to the almost 1,700,000 men and women who are serving their country.

You and your publication have been asked many times for assistance in special drives and campaigns for the welfare of our country. You have at all times shown whole-hearted cooperation.

We have sought and received support in this campaign from the professional societies from the national to the community level. Deans of medical and dental schools and the heads of hospitals also have been asked to cooperate in this emergency.

The success of this procurement campaign will

depend primarily upon public understanding and public support. The people of the United States must be made aware of the seriousness of the problem which faces us. If this shortage is allowed to develop, it could jeopardize our entire national defense program.

The Medical Departments of the Armed Forces and your Government ask your cooperation in averting a situation that could have serious effects on the security of this country. Through your editorial pages and news columns you can help us inform the people of this country of the vital needs of the Medical Departments of the Armed Forces. You can urge these young men who received their medical and dental educations during the war years, and who have given no service, to volunteer their services to their country now when the need is so great.

I am enclosing a fact sheet and general background information which outlines the program in its entirety.

It must be made clear that we are not asking for physicians and dentists from areas where a shortage already exists. We are only trying to replace the physicians and dentists who have completed their obligation and who will be relieved from duty with the Armed Forces and will return to civilian life to practice their professions.

Your cooperation in this campaign can be of inestimable value and will be greatly appreciated by the Medical Departments of the Armed Forces, the young men and women in our Armed Forces and the families of these young people.

Sincerely yours,

James Forrestal.

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## WOMAN'S AUXILIARY NEWS

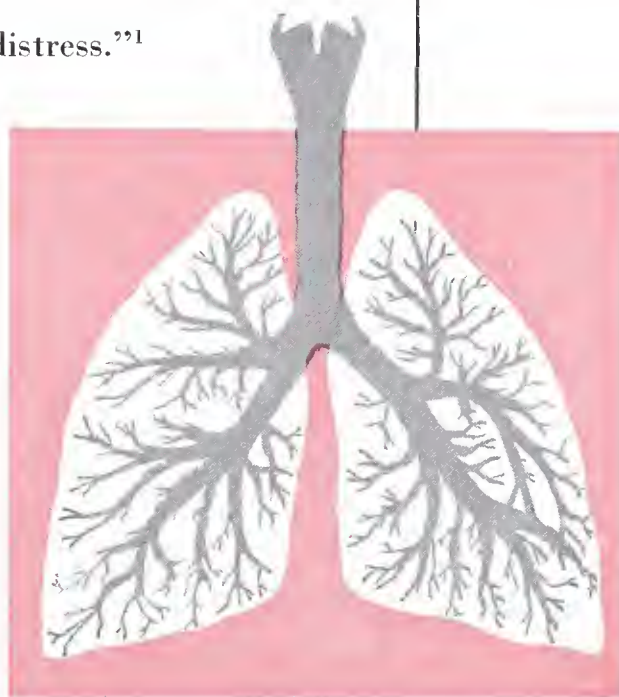
Dr. and Mrs. M. C. Crandal, Wilmot, were hosts to the Southeast Arkansas Medical Society March 21st, for fish dinner. The Auxiliary honored the doctors with a special program in observance of Doctor's Day. Special tribute was paid Dr. S. W. Douglas, Eudora, pioneer doctor of this locality, and charter member of the Southeast Medical Society. Doctors P. P. Rizzo, W. C. Cookston, Jr., and C. T. Yancy, Monroe, Louisiana, spoke on "Management of the Abnormal Cervix," "Jaundice in the Newborn Period," and "Recent Advances in the Diagnosis and Management of Coronary Artery Disease," respectively.

Mrs. W. J. Hunt, Warren.



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1. Murphy, F. D.: Treatment of Cardiovascular Emergencies in the Home, Wisconsin M. J. 42:769 (Aug.) 1943



## BOOK REVIEW

**Campbell's Operative Orthopedics**, by J. S. Speed, M.D., Editor and Hugh Smith, M.D., Associate Editor. Edition 2, Volumes I and II. C. V. Mosby Co., St. Louis, Missouri.

The first edition of this text was written by Dr. Willis C. Campbell in 1939. It was in one volume and was written mainly for orthopedic specialists. It met international acceptance and became the favorite orthopedic text for many bone surgeons. In 1941, the orthopedic profession suffered a great loss by the untimely death of Dr. Campbell.

The present edition is edited by Drs. J. S. Speed and Hugh Smith. These orthopedic surgeons worked closely with Dr. Campbell on the first edition. This second edition is in two volumes, is even a better book than its predecessor, and there is a complete subject index in the back of both volumes. In addition each of these volumes has an author index.

This work is written by eleven authors, eight of whom are members of the Staff of the Campbell Clinic and Faculty of the University of Tennessee. These men have written the chapters on the subjects in which they are recognized authorities. The other three authors are nationally recognized in their respective fields and have written chapters covering these subjects.

This new edition has nearly three hundred more illustrations than the original text. It also goes into more detail and will be found very useful and of much help to general surgeons doing traumatic and orthopedic

surgery as well as an excellent reference for the general practitioner.

The first chapter covering Preoperative and Postoperative Care is very informative and up to date. This is new in this edition as are the chapters on Peripheral Nerve Injuries and Amputations. Other important additions are the sections on Mold Arthroplasty, Ruptured Intervertebral Discs and Difficult and Unusual Non-unions.

The text is quite conclusive and many rare and less common lesions are covered. The bibliography at the end of each chapter is quite complete so that further study along any particular line may be followed readily by those who wish to do so. This is a very excellent text and is recommended to anyone interested in this line of work.



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